Access DB# 177765

#1

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: Sin J. Lee Examiner #: 76060 Date: 1-26-06
Art Unit: 1752 Phone Number 30 2-1333 Serial Number: 10/689,482
Mail Box and Bldg/Room Location: 9D60 (Rem.) Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

****

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

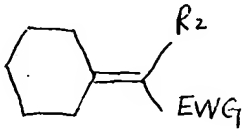
Title of Invention: Pl2. Lee B:6.

Inventors (please provide full names):

Earliest Priority Filing Date:

***For Sequence Searches Only* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.**

Please search for a polymer which contains the following moiety in its side chain.



R_2 = H; alkyl, heteroalkyl, or electron withdrawing gp.

EWG = $-\overset{O}{\overset{\|}{C}}-$, $-C\equiv N$, $-N=C<$, $-COOH$, $-COOR$, $-\overset{O}{\overset{\|}{C}}-N<$ Carboximido, or $-\overset{O}{\overset{\|}{\underset{O}{\underset{\|}{S}}}}-$, or other non-aromatic electron withdrawing gp.

****

STAFF USE ONLY

Searcher: Lisa
Searcher Phone #:
Searcher Location:
Date Searcher Picked Up: 1/27/06
Date Completed: 1/27/06
Searcher Prep & Review Time: 30
Clerical Prep Time: 30
Online Time: 70

Type of Search

NA Sequence (#)
AA Sequence (#)
Structure (#) 3
Bibliographic
Litigation
Fulltext
Patent Family
Other

Vendors and cost where applicable

STN 479.57
Dialog
Questel/Orbit
Dr.Link
Lexis/Nexis
Sequence Systems
WWW/Internet
Other (specify)

PTO-1590 (8-01)

Access DB# 171764

#1

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: Sin J. Lee Examiner #: 76060 Date: 1-26-06
Art Unit: 1752 Phone Number 30 2-1333 Serial Number: 10/689,482
Mail Box and Bldg/Room Location: 9D60 Results Format Preferred (circle): PAPER DISK E-MAIL
(Rem.)

If more than one search is submitted, please prioritize searches in order of need.

****

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

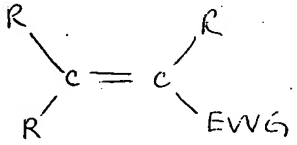
Title of Invention: Plz. see B.b.

Inventors (please provide full names):

Earliest Priority Filing Date:

For Sequence Searches Only *Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.*

Please search for a polymer which comprises the following moiety in its side chain:



(Plz. do not define R's because they can be anything)

EWG = $-\overset{O}{\overset{\|}{C}}-$,
$-C\equiv N$, $-N=C<$,
$-COOH$, $-COOR$,
$-\overset{O}{\overset{\|}{C}}-N<$, carboxamido
or $-\overset{O}{\overset{\|}{S}}(=O)-$ or other non-aromatic electron withdrawing

SCIENTIFIC REFERENCE BR
Sci & Tech Inf Ctr
JAN 27 RECD
Pat. & T.M. Office

****

STAFF USE ONLY

Searcher: Usha
Searcher Phone #:
Searcher Location:
Date Searcher Picked Up: 1/27/06
Date Completed: 1/27/06
Searcher Prep & Review Time: 30
Clerical Prep Time: 30
Online Time: 70

Type of Search

NA Sequence (#)	
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Structure (#)	1
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Litigation	
Fulltext	
Patent Family	
Other	

Vendors and cost where applicable

STN & 479.57
Dialog
Questel/Orbit
Dr.Link
Lexis/Nexis
Sequence Systems
WWW/Internet
Other (specify)

PTO-1590 (8-01)

#1

Access DB# 111763

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: Sin J. Lee Examiner #: 76060 Date: 1-26-06
Art Unit: 1752 Phone Number 30 2-1333 Serial Number: 10/689,482
Mail Box and Bldg/Room Location: 9060 (Rem.) Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

****

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

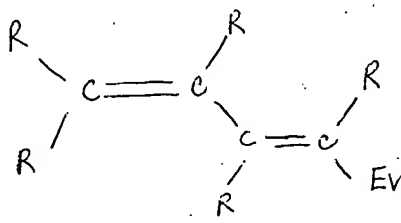
Title of Invention: P/2. Lee B/G

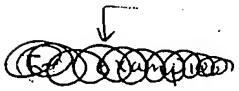
Inventors (please provide full names):

Earliest Priority Filing Date:

**For Sequence Searches Only* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.*

Please search for a polymer which contains the following moiety in its side chain





(Do not define R's because they can be anything !!!)

EWG = carbonyl (–C–), cyano (–C≡N), imino (–N=C<), carboxylic acid (–COOH), carboxylic ester (–COOR), carboxamido (–C(=O)–N<), carboximido, or sulfonyl gp. (–S(=O)(=O)–) or other non aromatic electron withdrawing gp

****

STAFF USE ONLY	Type of Search	Vendors and cost where applicable
Searcher: LYL	NA Sequence (#)	STN 479.57
Searcher Phone #:	AA Sequence (#)	Dialog
Searcher Location:	Structure (#) 2	Questel/Orbit
Date Searcher Picked Up: 1/27/06	Bibliographic	Dr.Link
Date Completed: 1/27/06	Litigation	Lexis/Nexis
Searcher Prep & Review Time: 30	Fulltext	Sequence Systems
Clerical Prep Time: 30	Patent Family	WWW/Internet
Online Time: 70	Other	Other (specify)

PTO-1590 (8-01)

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
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P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

BIBDATASHEET

Bib Data Sheet

CONFIRMATION NO. 7931

SERIAL NUMBER	FILING DATE	CLASS	GROUP ART UNIT	ATTORNEY DOCKET NO.
10/689,482	10/20/2003 RULE	430	1752	27615-CNT2

APPLICANTS

Xie Shao, Rolla, MO;

Robert Cox, St. James, MO;
Shreeram V. Deshpande, Rolla, MO;Tony D. Flaim, St. James, MO;
Rama Puligadda, Rolla, MO;

** CONTINUING DATA **********

This application is a CON of 09/961,751 09/24/2001 ABN SJL
which is a CON of 09/450,966 11/30/1999 ABN

** FOREIGN APPLICATIONS **********

None SJL

IF REQUIRED, FOREIGN FILING LICENSE GRANTED ** SMALL ENTITY **
** 12/23/2003

Foreign Priority claimed ☐ yes ☑ no 35 USC 119 (a-d) conditions met ☐ yes ☐ no ☐ Met after Allowance Verified and Acknowledged Examiner's Signature Initials SJL	STATE OR COUNTRY MO	SHEETS DRAWING 0	TOTAL CLAIMS 44	INDEPENDENT CLAIMS 13

ADDRESS
23589
HOVEY WILLIAMS LLP
2405 GRAND BLVD., SUITE 400
KANSAS CITY , MO
64108

TITLE
Non-aromatic chromophores for use in polymer anti-reflective coatings

FILING FEE	FEES: Authority has been given in Paper	☐ All Fees ☐ 1.16 Fees (Filing)

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=> fil reg
FILE 'REGISTRY' ENTERED AT 12:11:01 ON 27 JAN 2006

=> d his


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                 SEL RN

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L6               STR

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L16              SCR 2078
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L28           11 S L27 AND PMS/CI
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L33          131 S L32(L)COAT?
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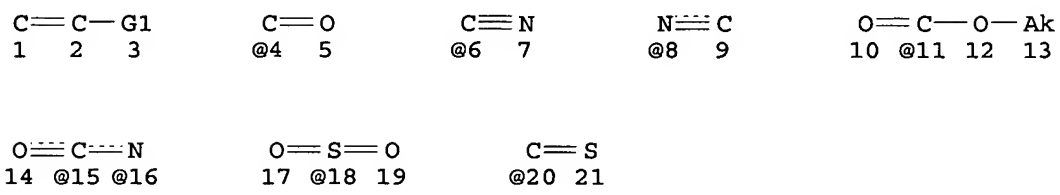


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DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
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STEREO ATTRIBUTES: NONE
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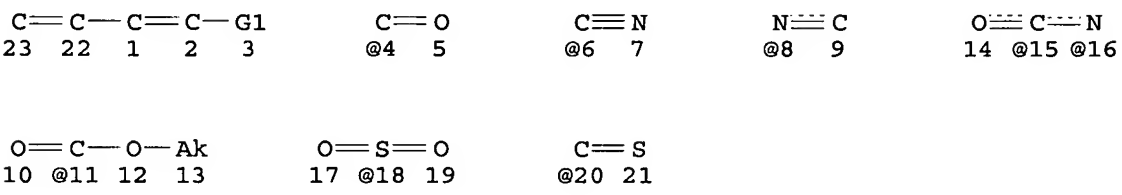


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DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS  23

STEREO ATTRIBUTES: NONE
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L14               SCR 1929
L16               SCR 2078
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L21       109707 SEA FILE=REGISTRY ABB=ON  PLU=ON  L19 AND PMS/CI
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                 OR ANTIREFLECT?)
L38            1 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L36 AND (ANTI(A)REFLEC
                 T? OR ANTIREFLECT?)
L39            6 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L36(L)COAT?
L40           20 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L36 AND PHOTOG?/SC
L41           25 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L37 OR L38 OR L39 OR
                 L40)


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FILE 'HCAPLUS' ENTERED AT 12:11:22 ON 27 JAN 2006

=> sel l41 hit rn 1-25
E318 THROUGH E398 ASSIGNED

=> d l41 1-25 ibib abs hitstr hitrn

L41  ANSWER 1 OF 25  HCAPLUS  COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER:         2005:587409  HCAPLUS
DOCUMENT NUMBER:          143:116919
TITLE:                    Radical polymerizable polyester compositions
                          for UV-curable coatings and printing inks with
                          good adhesion to metal or plastic substrates,
                          toughness and impact resistance
INVENTOR(S):              Furingusu, Rainer B.; Shibata, Ou; Gurae,
                          Geruwarudo F.
PATENT ASSIGNEE(S):       Dainippon Ink and Chemicals, Inc., Japan
SOURCE:                   Jpn. Kokai Tokkyo Koho, 23 pp.
                          CODEN: JKXXAF
DOCUMENT TYPE:            Patent
LANGUAGE:                 Japanese
FAMILY ACC. NUM. COUNT:   1
PATENT INFORMATION:

     PATENT NO.           KIND   DATE        APPLICATION NO.        DATE
     ---------------      ----   --------    --------------------
     --------
     JP 2005179511         A2    20050707    JP 2003-422566
                                                                   2003
                                                                   1219
PRIORITY APPLN. INFO.:                       JP 2003-422566
                                                                   2003
                                                                   1219
```

AB The composition comprises a high branched polyester having unsatd. double bond in its end prepared by Diels-Alder reaction of a multifunctional sorbic acid ester with a multifunctional acrylic acid ester, wherein the esters have different functionality nos.; and a photopolymn. initiator. Thus, 65 parts dipropylene glycol diacrylate-poly(ethylene glycol) trimethylolpropane ether trisorbate copolymer was mixed with 35 parts dipropylene glycol diacrylate, 3 parts diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide and 2 parts 2-hydroxy-2-methyl-1-phenylpropan-1-one, coated on an aluminum or a PET film, and UV-cured, showing viscosity (25°) 0.0185 Pa-s, shrinkage rate 7.0% and good adhesion to aluminum or PET film.

IT **586390-68-3P 586390-72-9P 639513-59-0P 639806-14-7P 856895-46-0P 856895-47-1P 856895-48-2P**
(radical polymerizable polyester compns. for UV-curable **coatings** and printing inks with good adhesion to metal or plastic substrates, toughness and impact resistance)

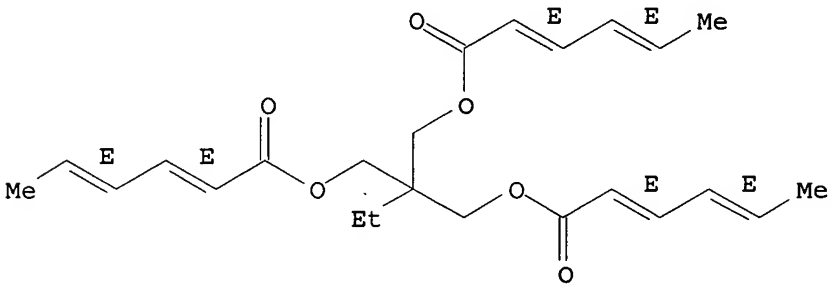
RN 586390-68-3 HCAPLUS

CN 2,4-Hexadienoic acid, 2-ethyl-2-[[[(2E,4E)-1-oxo-2,4-hexadienyl]oxy]methyl]-1,3-propanediyl ester, (2E,2'E,4E,4'E)-, polymer with oxybis(methyl-2,1-ethanediyl) di-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 347377-00-8
CMF C24 H32 O6

Double bond geometry as shown.



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CRN 57472-68-1
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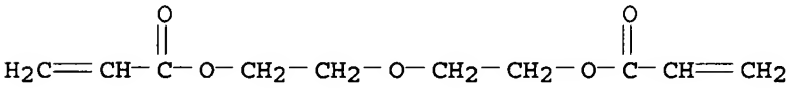
CCI IDS



2 (D1—Me)

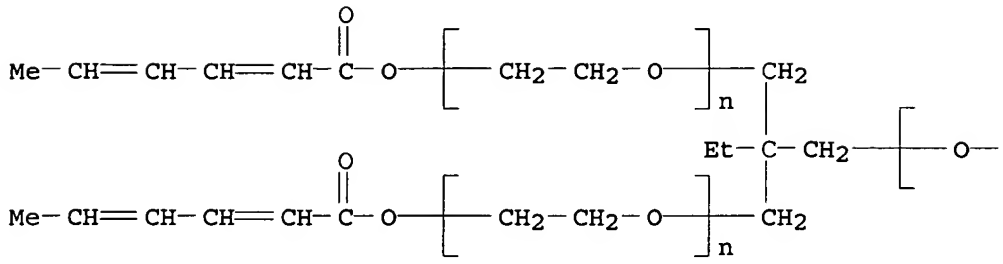
RN 586390-72-9 HCAPLUS

CN 2-Propenoic acid, 1,6-hexanediyl ester, polymer with α-hydro-ω-[[(2E,4E)-1-oxo-2,4-hexadienyl]oxy]poly(oxy-1,2-ethanediyl) ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1) (9CI) (CA INDEX NAME)

CM 1

CRN 586390-69-4
CMF (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n C24 H32 O6
CCI PMS

PAGE 1-A



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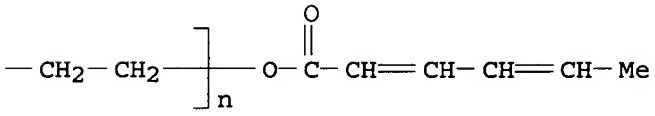

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CRN 13048-33-4
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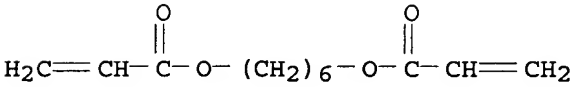

RN 639513-59-0 HCAPLUS
CN 2,4-Hexadienoic acid, 2-[[3-[[(2E,4E)-1-oxo-2,4-hexadienyl]oxy]-2,2-bis[[[(2E,4E)-1-oxo-2,4-hexadienyl]oxy]methyl]propoxy]methyl]-2-[[[(2E,4E)-1-oxo-2,4-hexadienyl]oxy]methyl]-1,3-propanediyl ester, (2E,2'E,4E,4'E)-, polymer with 1,6-hexanediyl di-2-propenoate and α-hydro-ω-[(1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediyl) ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1) (9CI) (CA INDEX NAME)

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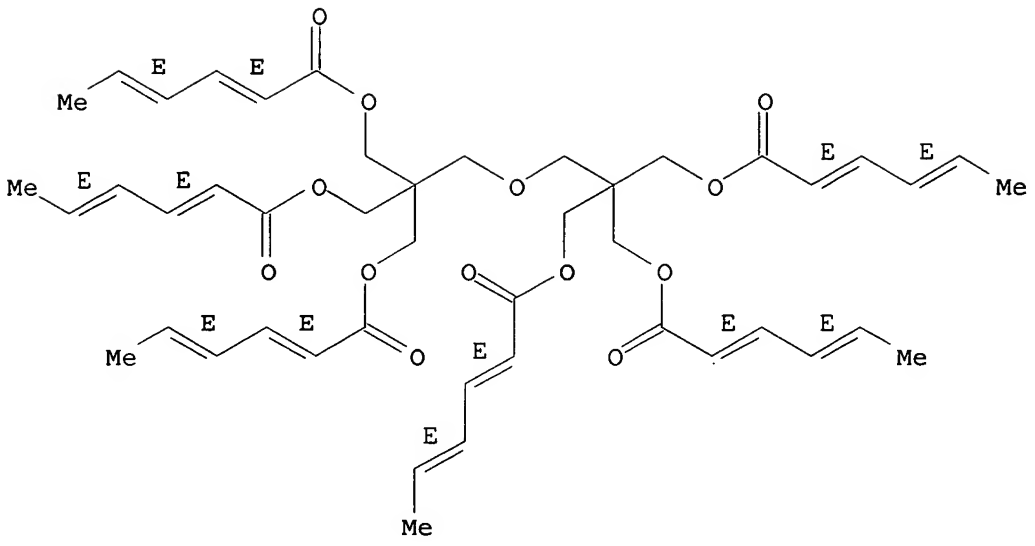
CRN 347377-04-2
CMF C46 H58 O13

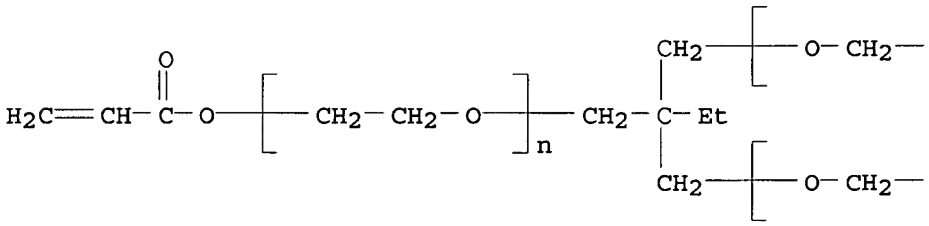
Double bond geometry as shown.



CM 2

CRN 28961-43-5
CMF (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n C15 H20 O6
CCI PMS

PAGE 1-A



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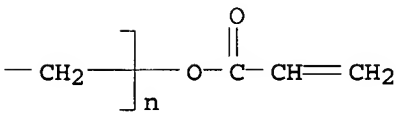

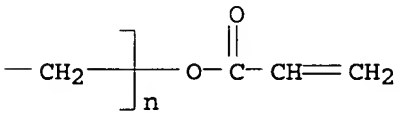

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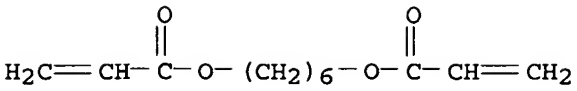
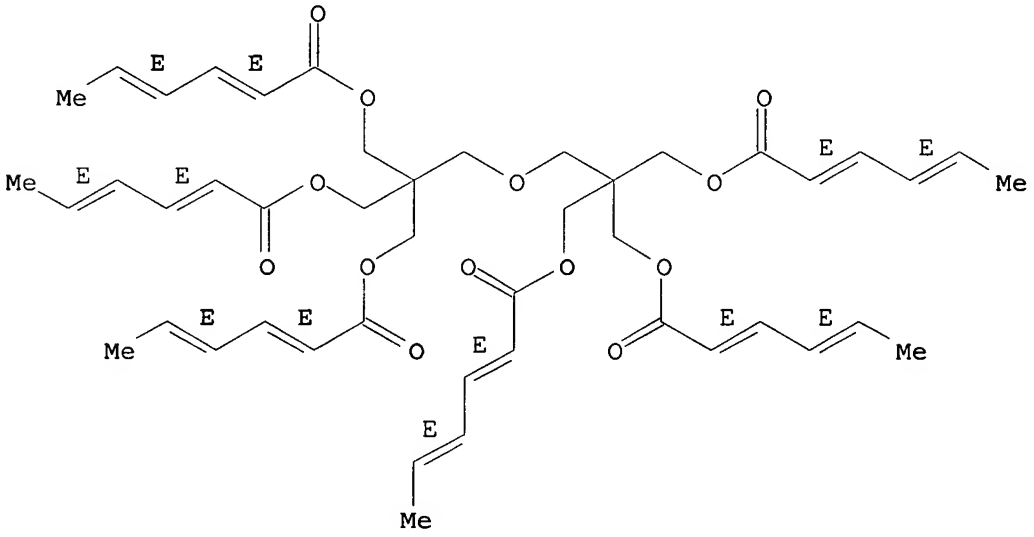


RN 639806-14-7 HCAPLUS
CN 2,4-Hexadienoic acid, 2-[[3-[[(2E,4E)-1-oxo-2,4-hexadienyl]oxy]-2,2-bis[[[(2E,4E)-1-oxo-2,4-hexadienyl]oxy]methyl]propoxy]methyl]-2-[[[(2E,4E)-1-oxo-2,4-hexadienyl]oxy]methyl]-1,3-propanediyl ester, (2E,2'E,4E,4'E)-, polymer with 2-[[(butylamino)carbonyl]oxy]ethyl 2-propenoate and α-hydro-ω-[(1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediyl) ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1) (9CI) (CA INDEX NAME)

CM 1

CRN 347377-04-2
CMF C46 H58 O13

Double bond geometry as shown.



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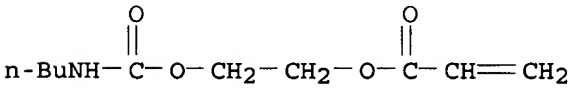
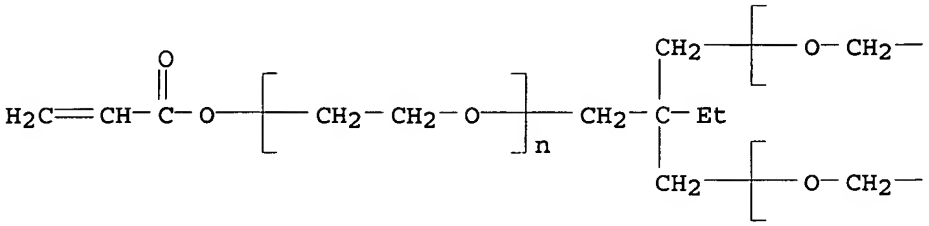
CRN 63225-53-6
CMF C10 H17 N O4



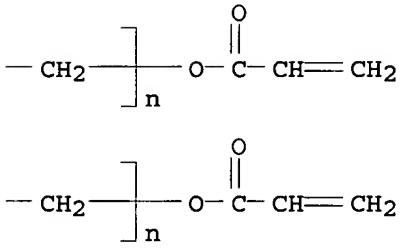
CM 3

CRN 28961-43-5
CMF (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n C15 H20 O6
CCI PMS

PAGE 1-A



PAGE 1-B

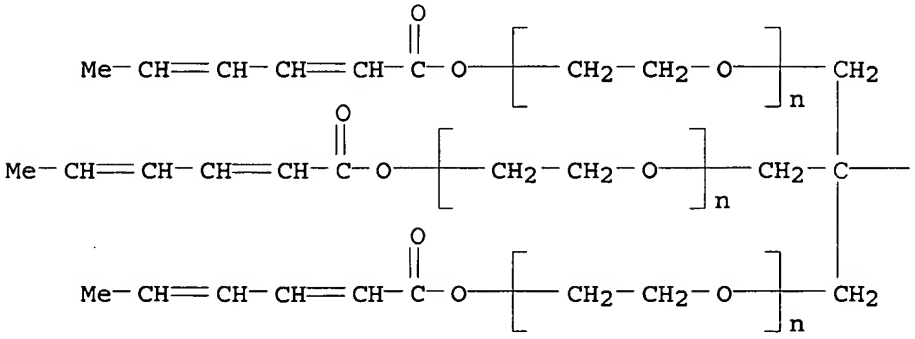


RN 856895-46-0 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), α-hydro-ω-[[(2E,4E)-1-oxo-2,4-hexadienyl]oxy]-, ether with 2,2-bis(hydroxymethyl)-1,3-propanediol (4:1), polymer with α-hydro-ω-[(1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediyl) ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1) (9CI) (CA INDEX NAME)

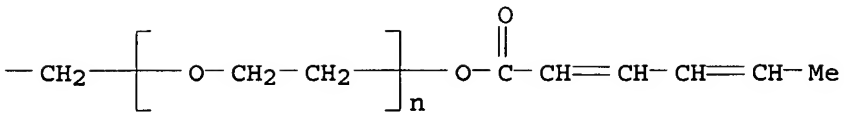
CM 1

CRN 586390-73-0
CMF (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n C29 H36 O8
CCI PMS

PAGE 1-A



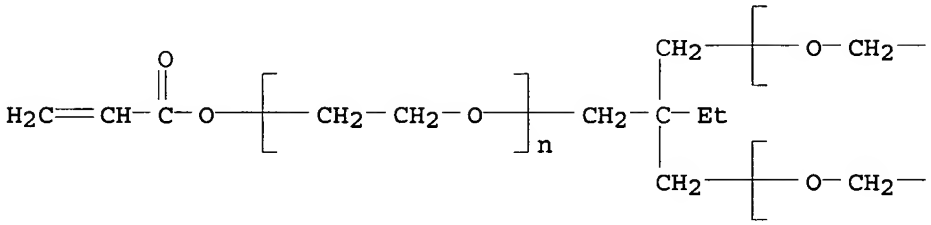
PAGE 1-B



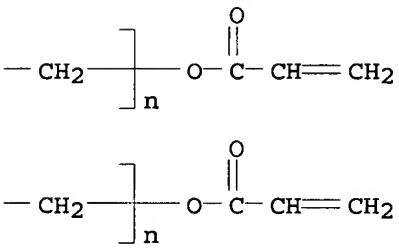
CM 2

CRN 28961-43-5
CMF (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n C15 H20 O6
CCI PMS

PAGE 1-A



PAGE 1-B

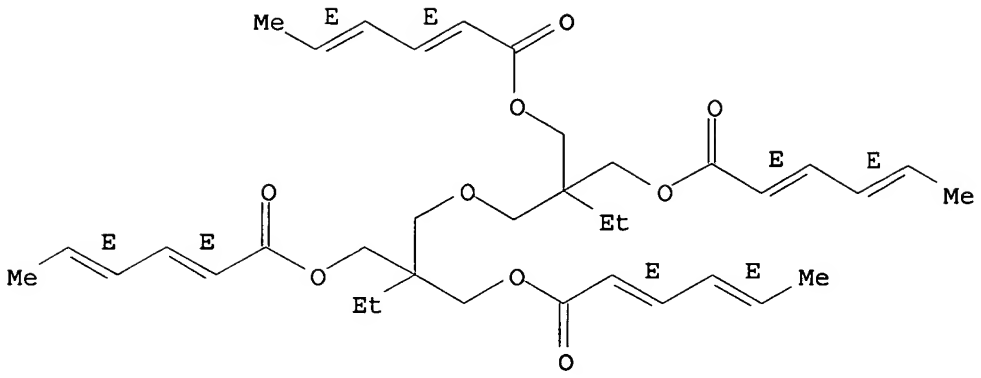


RN 856895-47-1 HCAPLUS
CN 2,4-Hexadienoic acid, 2-[[2,2-bis[[[(2E,4E)-1-oxo-2,4-hexadienyl]oxy]methyl]butoxy]methyl]-2-ethyl-1,3-propanediyl ester, (2E,2'E,4E,4'E)-, polymer with α-hydro-ω-[(1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediyl) ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1) (9CI) (CA INDEX NAME)

CM 1

CRN 639513-56-7
CMF C36 H50 O9

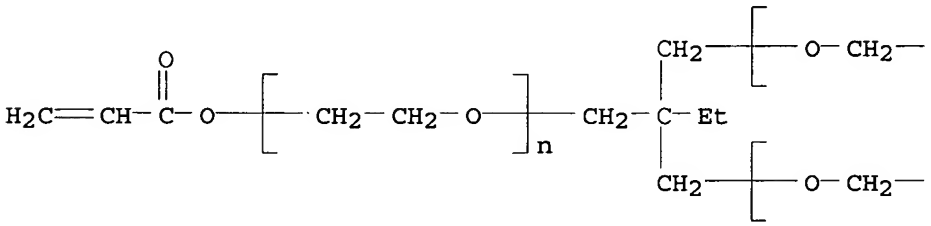
Double bond geometry as shown.



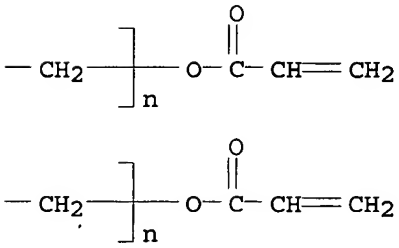
CM 2

CRN 28961-43-5
CMF (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n C15 H20 O6
CCI PMS

PAGE 1-A



PAGE 1-B



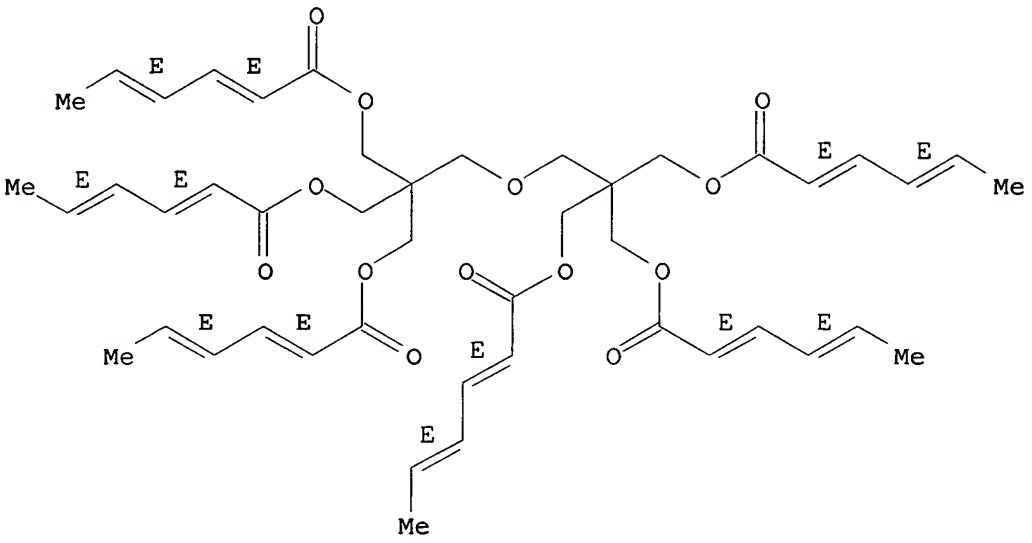
RN 856895-48-2 HCAPLUS
CN 2,4-Hexadienoic acid, 2-[[3-[[(2E,4E)-1-oxo-2,4-hexadienyl]oxy]-2,2-bis[[[(2E,4E)-1-oxo-2,4-hexadienyl]oxy]methyl]propoxy]methyl]-2-[[[(2E,4E)-1-oxo-2,4-hexadienyl]oxy]methyl]-1,3-propanediyl ester, (2E,2'E,4E,4'E)-, polymer with α-hydro-ω-[(1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediyl) ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1) (9CI) (CA INDEX NAME)

CM 1

CRN 347377-04-2

CMF C46 H58 O13

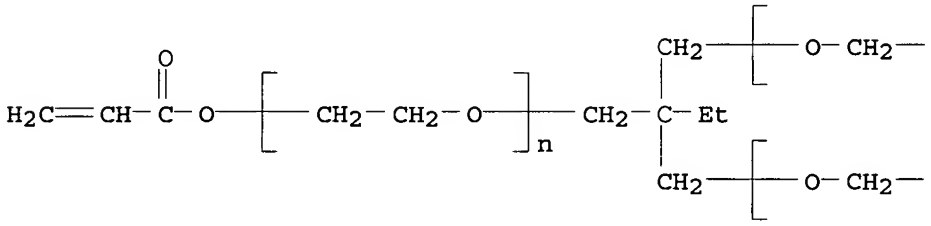
Double bond geometry as shown.



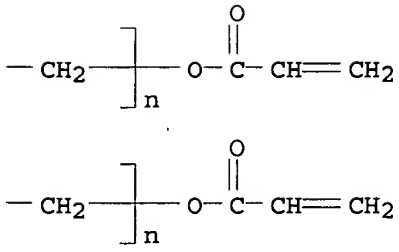
CM 2

CRN 28961-43-5
CMF (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n C15 H20 O6
CCI PMS

PAGE 1-A



PAGE 1-B



IT **586390-70-7P**
(radical polymerizable polyester compns. for UV-curable

coatings and printing inks with good adhesion to metal or plastic substrates, toughness and impact resistance)

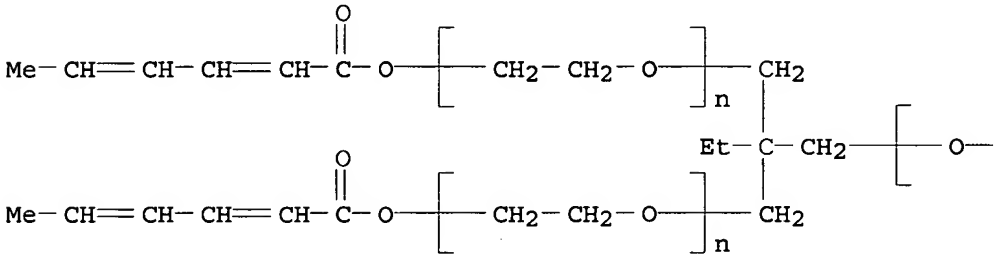
RN 586390-70-7 HCAPLUS

CN 2-Propenoic acid, oxybis(methyl-2,1-ethanediyl) ester, polymer with α-hydro-ω-[[(2E,4E)-1-oxo-2,4-hexadienyl]oxy]poly(oxy-1,2-ethanediyl) ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1) (9CI) (CA INDEX NAME)

CM 1

CRN 586390-69-4
CMF (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n C24 H32 O6
CCI PMS

PAGE 1-A



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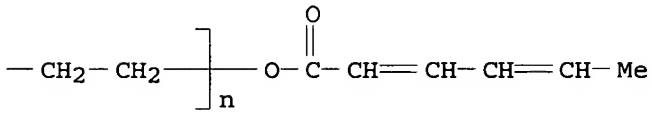
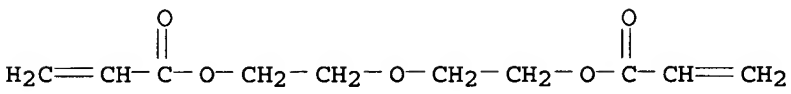


CM 2

CRN 57472-68-1
CMF C12 H18 O5
CCI IDS



2 (D1—Me)

IT **639513-51-2P 639513-53-4P 639513-54-5P**
639513-55-6P 639513-57-8P 639513-58-9P
639513-60-3P 639806-12-5P 639806-16-9P

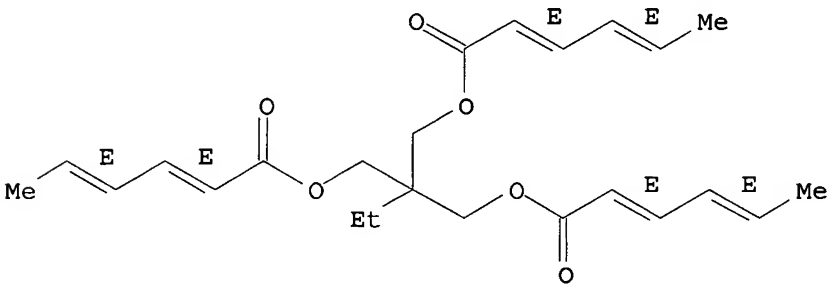
(radical polymerizable polyester compns. for UV-curable **coatings** and printing inks with good adhesion to metal or plastic substrates, toughness and impact resistance)

RN 639513-51-2 HCAPLUS
CN 2,4-Hexadienoic acid, 2-ethyl-2-[[[(2E,4E)-1-oxo-2,4-hexadienyl]oxy]methyl]-1,3-propanediyl ester, (2E,2'E,4E,4'E)-, polymer with EPAC 1 and oxybis(methyl-2,1-ethanediyl) di-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 347377-00-8
CMF C24 H32 O6

Double bond geometry as shown.



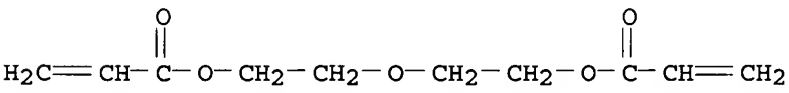
CM 2

CRN 342578-83-0
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 3

CRN 57472-68-1
CMF C12 H18 O5
CCI IDS



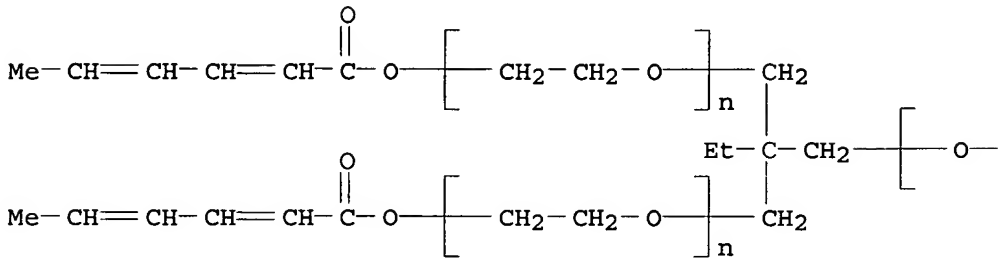
2 (D1—Me)

RN 639513-53-4 HCAPLUS
CN 2-Propenoic acid, 1,6-hexanediyl ester, polymer with EPAC 1 and α-hydro-ω-[[(2E,4E)-1-oxo-2,4-hexadienyl]oxy]poly(oxy-1,2-ethanediyl) ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1) (9CI) (CA INDEX NAME)

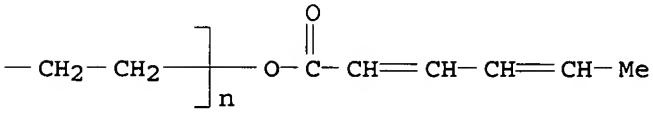
CM 1

CRN 586390-69-4
CMF (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n C24 H32 O6
CCI PMS

PAGE 1-A



PAGE 1-B



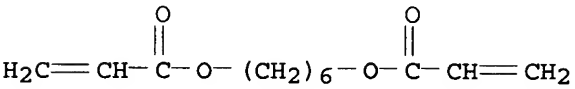
CM 2

CRN 342578-83-0
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 3

CRN 13048-33-4
CMF C12 H18 O4



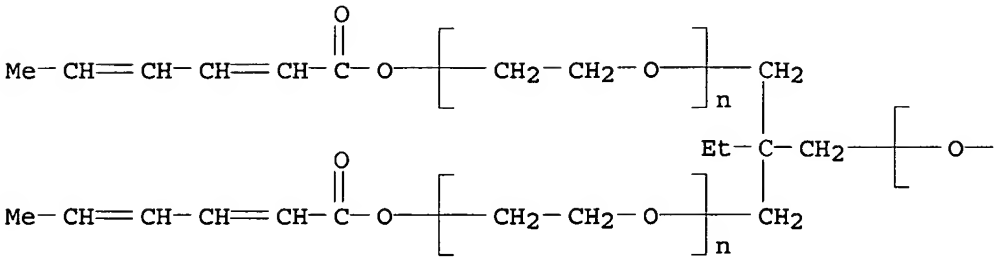
RN 639513-54-5 HCAPLUS
CN 2-Propenoic acid, 1,6-hexanediyl ester, polymer with α-hydro-ω-[[(2E,4E)-1-oxo-2,4-hexadienyl]oxy]poly(oxy-1,2-ethanediyl) ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1), and oxybis(methyl-2,1-ethanediyl) di-2-propenoate (9CI) (CA INDEX NAME)

CM 1

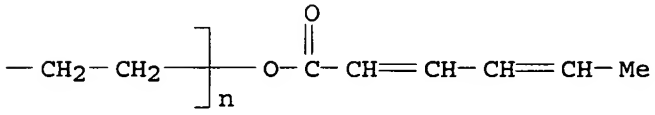
CRN 586390-69-4

CMF (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n C24 H32 O6
CCI PMS

PAGE 1-A

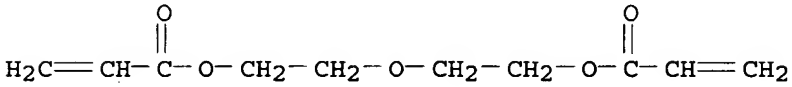


PAGE 1-B



CM 2

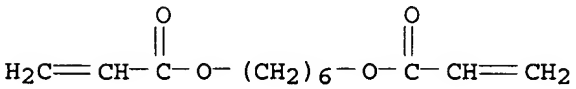
CRN 57472-68-1
CMF C12 H18 O5
CCI IDS



2 (D1—Me)

CM 3

CRN 13048-33-4
CMF C12 H18 O4



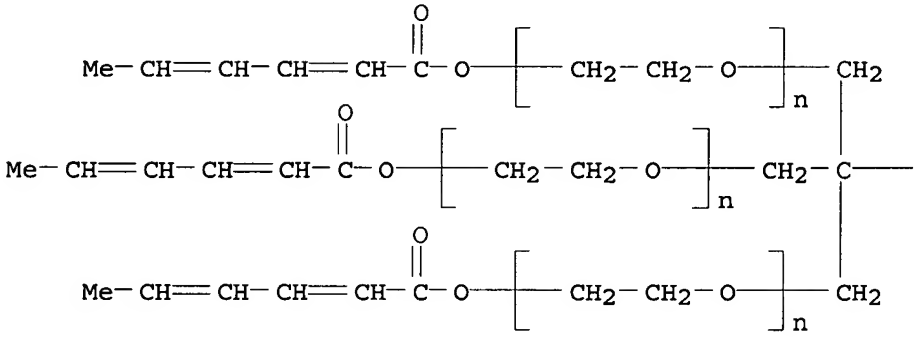
RN 639513-55-6 HCAPLUS
CN 2-Propenoic acid, oxybis(methyl-2,1-ethanediyl) ester, polymer with α-hydro-ω-[[(2E,4E)-1-oxo-2,4-

hexadienyl]oxy]poly(oxy-1,2-ethanediyl) ether with 2,2-bis(hydroxymethyl)-1,3-propanediol (4:1), and α-hydro-ω-[(1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediyl) ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1) (9CI) (CA INDEX NAME)

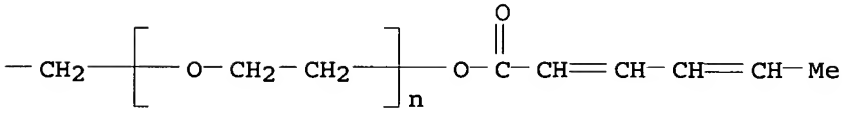
CM 1

CRN 586390-73-0
CMF (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n C29 H36 O8
CCI PMS

PAGE 1-A

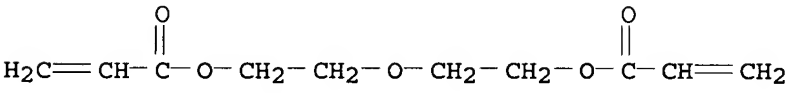


PAGE 1-B



CM 2

CRN 57472-68-1
CMF C12 H18 O5
CCI IDS

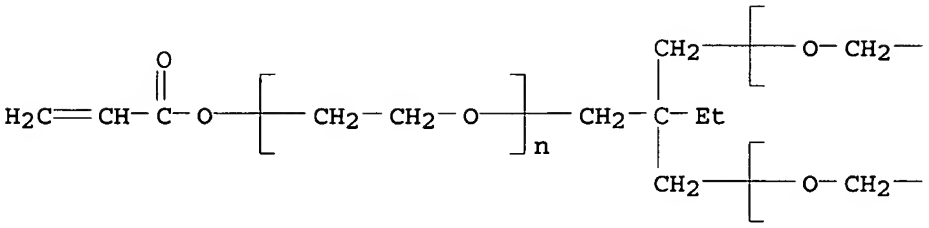


2 (D1—Me)

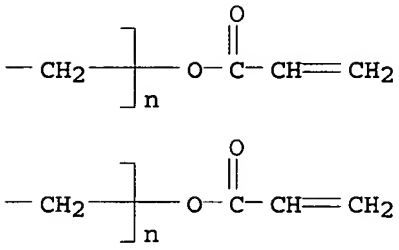
CM 3

CRN 28961-43-5
CMF (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n C15 H20 O6
CCI PMS

PAGE 1-A



PAGE 1-B

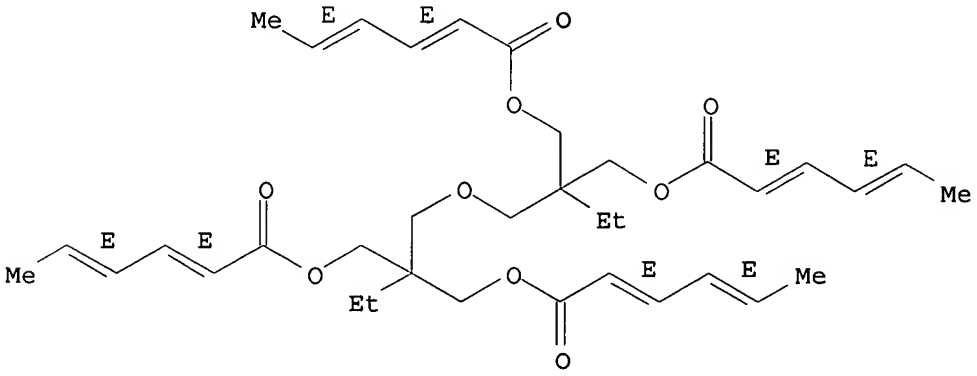


RN 639513-57-8 HCAPLUS
CN 2,4-Hexadienoic acid, 2-[[2,2-bis[[[(2E,4E)-1-oxo-2,4-hexadienyl]oxy]methyl]butoxy]methyl]-2-ethyl-1,3-propanediyl ester, (2E,2'E,4E,4'E)-, polymer with α-hydro-ω-[(1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediyl) ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1), and oxybis(methyl-2,1-ethanediyl) di-2-propenoate (9CI) (CA INDEX NAME)

CM 1

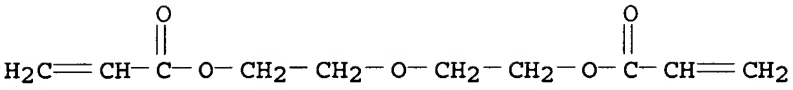
CRN 639513-56-7
CMF C36 H50 O9

Double bond geometry as shown.



CM 2

CRN 57472-68-1
CMF C12 H18 O5
CCI IDS

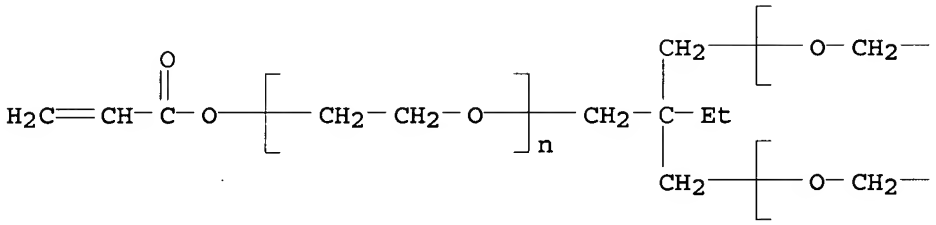


2 (D1—Me)

CM 3

CRN 28961-43-5
CMF (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n C15 H20 O6
CCI PMS

PAGE 1-A



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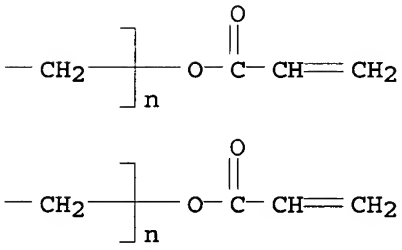
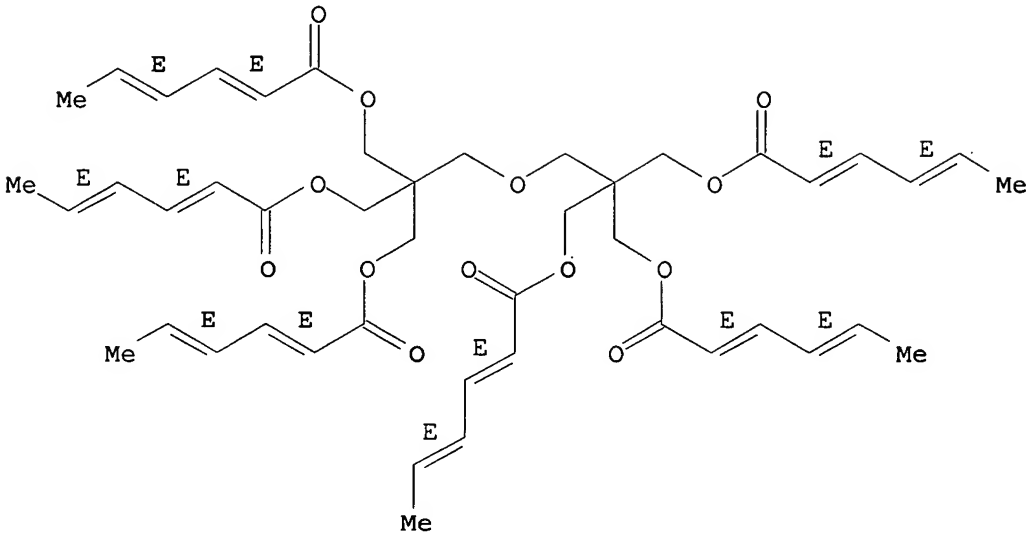


RN 639513-58-9 HCAPLUS
CN 2,4-Hexadienoic acid, 2-[[3-[[(2E,4E)-1-oxo-2,4-hexadienyl]oxy]-2,2-bis[[[(2E,4E)-1-oxo-2,4-hexadienyl]oxy]methyl]propoxy]methyl]-2-[[[(2E,4E)-1-oxo-2,4-hexadienyl]oxy]methyl]-1,3-propanediyl ester, (2E,2'E,4E,4'E)-, polymer with α-hydro-ω-[(1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediyl) ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1), and oxybis(methyl-2,1-ethanediyl) di-2-propenoate (9CI) (CA INDEX NAME)

CM 1

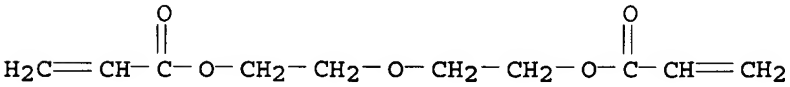
CRN 347377-04-2
CMF C46 H58 O13

Double bond geometry as shown.



CM 2

CRN 57472-68-1
CMF C12 H18 O5
CCI IDS

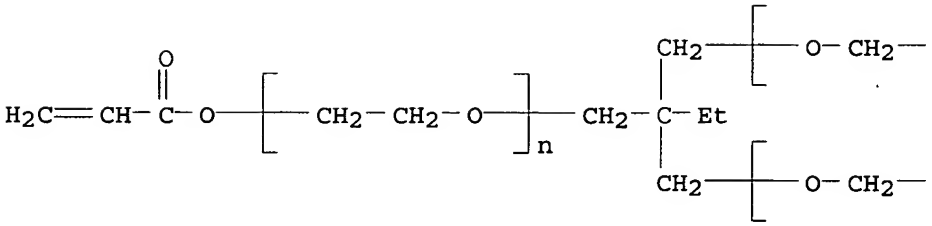


2 (D1—Me)

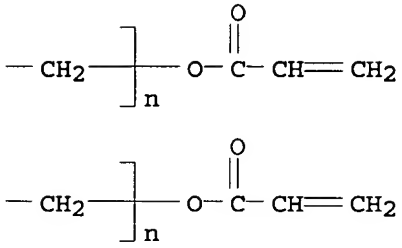
CM 3

CRN 28961-43-5
CMF (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n C15 H20 O6
CCI PMS

PAGE 1-A



PAGE 1-B

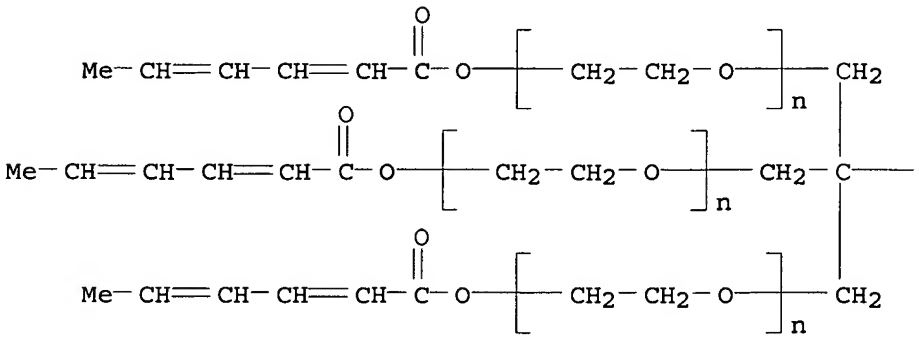


RN 639513-60-3 HCAPLUS
CN 2-Propenoic acid, 1,6-hexanediyl ester, polymer with α-hydro-ω-[[(2E,4E)-1-oxo-2,4-hexadienyl]oxy]poly(oxy-1,2-ethanediyl) ether with 2,2-bis(hydroxymethyl)-1,3-propanediol (4:1), and α-hydro-ω-[(1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediyl) ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1) (9CI) (CA INDEX NAME)

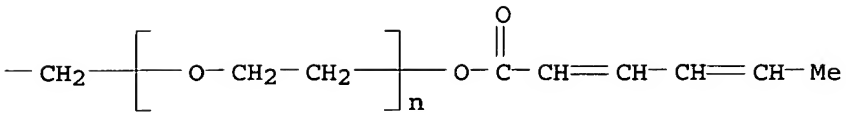
CM 1

CRN 586390-73-0
CMF (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n C29 H36 O8
CCI PMS

PAGE 1-A



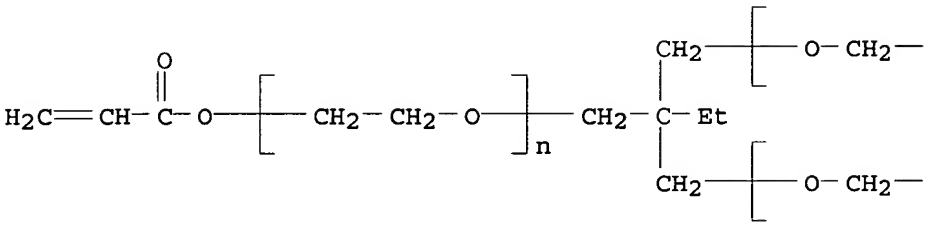
PAGE 1-B



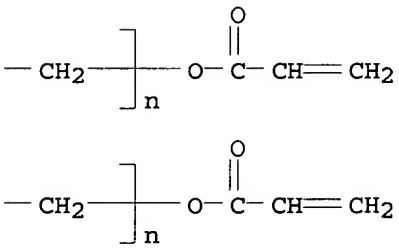
CM 2

CRN 28961-43-5
CMF (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n C15 H20 O6
CCI PMS

PAGE 1-A

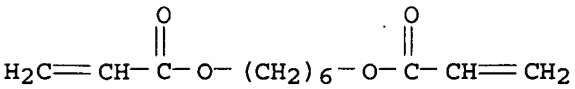


PAGE 1-B



CM 3

CRN 13048-33-4
CMF C12 H18 O4



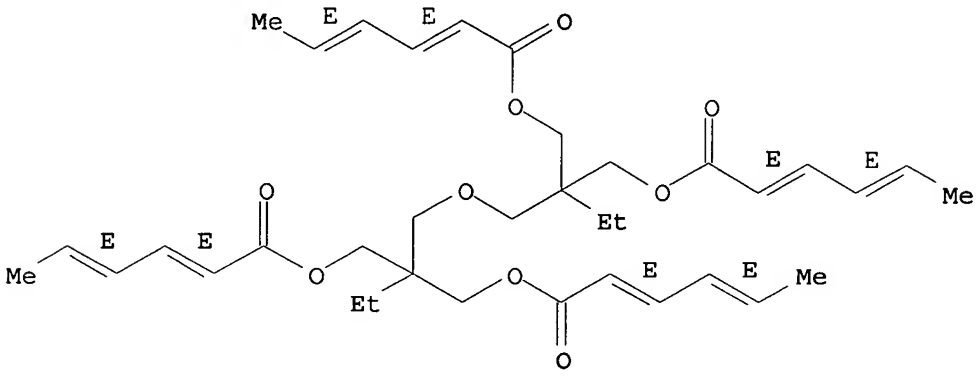
RN 639806-12-5 HCAPLUS
CN 2,4-Hexadienoic acid, 2-[[2,2-bis[[[(2E,4E)-1-oxo-2,4-hexadienyl]oxy]methyl]butoxy]methyl]-2-ethyl-1,3-propanediyl

ester, (2E,2'E,4E,4'E)-, polymer with 2-[[(butylamino)carbonyl]oxy]ethyl 2-propenoate and α-hydro-ω-[(1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediyl) ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1) (9CI) (CA INDEX NAME)

CM 1

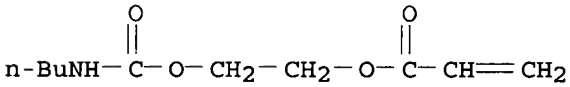
CRN 639513-56-7
CMF C36 H50 O9

Double bond geometry as shown.



CM 2

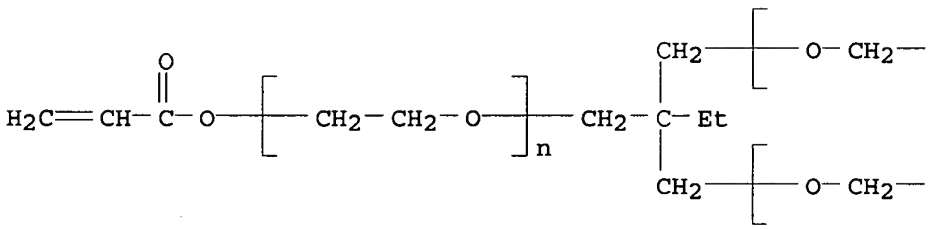
CRN 63225-53-6
CMF C10 H17 N O4



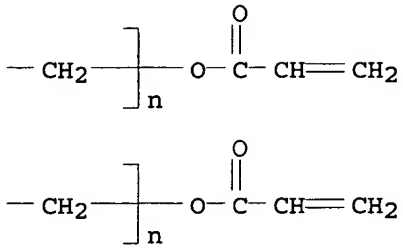
CM 3

CRN 28961-43-5
CMF (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n C15 H20 O6
CCI PMS

PAGE 1-A



PAGE 1-B



RN 639806-16-9 HCAPLUS
CN 2-Propenoic acid, 2-[[(butylamino)carbonyl]oxy]ethyl ester, polymer with α-hydro-ω-[[(2E,4E)-1-oxo-2,4-hexadienyl]oxy]poly(oxy-1,2-ethanediyl) ether with 2,2-bis(hydroxymethyl)-1,3-propanediol (4:1), and α-hydro-ω-[(1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediyl) ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1) (9CI) (CA INDEX NAME)

CM 1

CRN 586390-73-0
CMF (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n C29 H36 O8
CCI PMS

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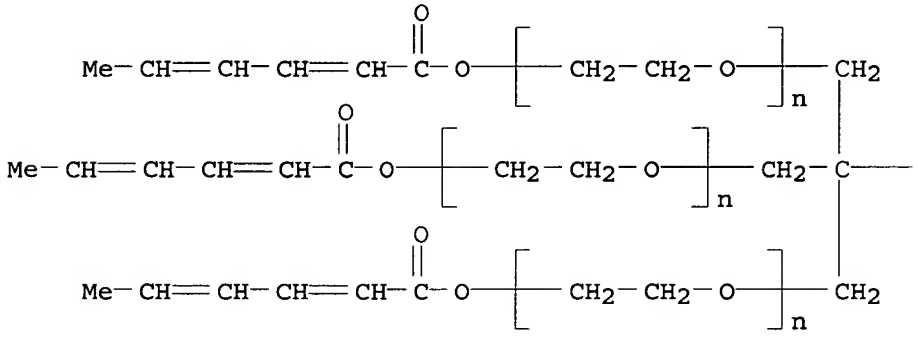
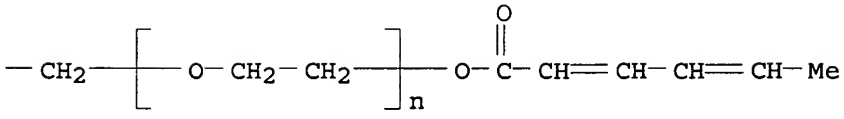


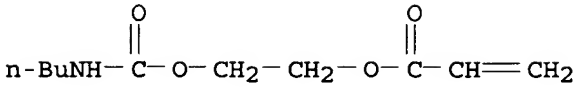
PAGE 1-B



CM 2

CRN 63225-53-6

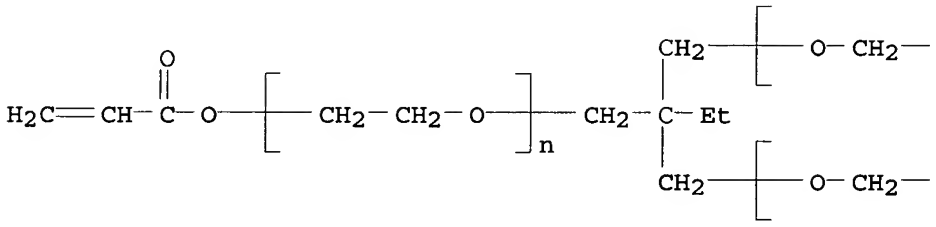
CMF C10 H17 N O4



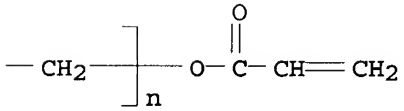
CM 3

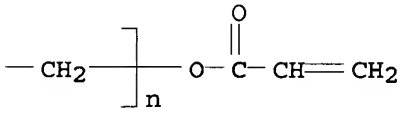
CRN 28961-43-5
CMF (C2 H4 O)n (C2 H4 O)n (C2 H4 O)n C15 H20 O6
CCI PMS

PAGE 1-A



PAGE 1-B





IT **586390-68-3P 586390-72-9P 639513-59-0P 639806-14-7P 856895-46-0P 856895-47-1P 856895-48-2P**
(radical polymerizable polyester compns. for UV-curable **coatings** and printing inks with good adhesion to metal or plastic substrates, toughness and impact resistance)

IT **586390-70-7P**
(radical polymerizable polyester compns. for UV-curable **coatings** and printing inks with good adhesion to metal or plastic substrates, toughness and impact resistance)

IT **639513-51-2P 639513-53-4P 639513-54-5P 639513-55-6P 639513-57-8P 639513-58-9P 639513-60-3P 639806-12-5P 639806-16-9P**
(radical polymerizable polyester compns. for UV-curable **coatings** and printing inks with good adhesion to metal or plastic substrates, toughness and impact resistance)

L41 ANSWER 2 OF 25 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:822755 HCAPLUS
DOCUMENT NUMBER: 141:340487
TITLE: Optical data carrier with polymer network in information layer
INVENTOR(S): Berneth, Horst; Bruder, Friedrich-Karl; Hagen, Rainer; Hassenrueck, Karin; Kostromine, Serguei; Krueger, Christa Maria; Meyer-Friedrichsen, Timo; Oser, Rafael; Stawitz, Josef-Walter
PATENT ASSIGNEE(S): Bayer Chemicals A.-G., Germany
SOURCE: Ger. Offen., 131 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 10313173	A1	20041007	DE 2003-10313173	2003 0325
WO 2004086390	A1	20041007	WO 2004-EP2585	2004 0312
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1611574	A1	20060104	EP 2004-719936	2004 0312
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK				

PRIORITY APPLN. INFO.:
DE 2003-10313173 A 2003 0325
WO 2004-EP2585 W 2004 0312

AB The invention relates to an optical data storage device with at least one information layer, wherein the information layer contains the polymer network with covalent bonded light-absorbable compds. Monomers for the polymer network are prepared

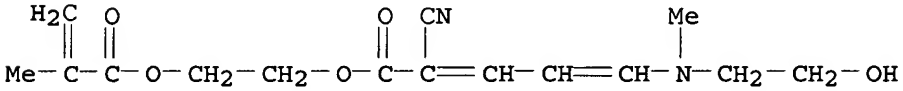
IT **769934-93-2P 769935-06-0P**
(polymer network preparation; optical data carrier with polymer

network in information layer)

RN 769934-93-2 HCAPLUS
CN 2,4-Pentadienoic acid, 2-cyano-5-[(2-hydroxyethyl)methylamino]-, 2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

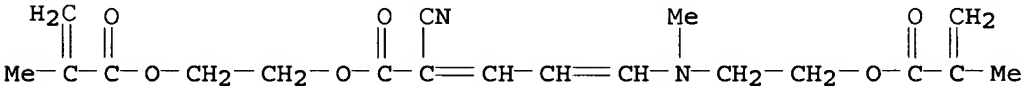
CRN 769934-78-3
CMF C15 H20 N2 O5



RN 769935-06-0 HCAPLUS
CN 2,4-Pentadienoic acid, 2-cyano-5-[methyl[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]amino]-, 2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 769935-05-9
CMF C19 H24 N2 O6



IT **769934-93-2P 769935-06-0P**
(polymer network preparation; optical data carrier with polymer network in information layer)

L41 ANSWER 3 OF 25 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:728719 HCAPLUS
DOCUMENT NUMBER: 137:270561
TITLE: Ink-jet printing sheets with improved light resistance and image density after long-term storage
INVENTOR(S): Tsujibata, Shigetomo; Nakano, Ryoichi; Wakata, Yuichi; Yamamoto, Mizuki
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 26 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002274024	A2	20020925	JP 2001-279263	2001

PRIORITY APPLN. INFO.: JP 2001-2944 A 20010914
20010110

AB The sheets possess ink-receptor layers which contain polymers bearing [CH2CH(CH2)nNH3+X-] and [CH2CH(CH2)nNH2] (X = counter anion; n = 0, 1) and preferably microparticulate inorg. pigments and water-soluble resins.

IT **462654-88-2P**, Polyallylamine sorbate **462654-89-3P**
, Polyvinylamine sorbate
(ink-receptor layers; ink-jet printing sheets with improved light resistance and image d. after long-term storage)

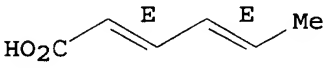
RN 462654-88-2 HCAPLUS

CN 2,4-Hexadienoic acid, (2E,4E)-, compd. with 2-propen-1-amine homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 110-44-1
CMF C6 H8 O2

Double bond geometry as shown.

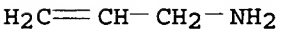


CM 2

CRN 30551-89-4
CMF (C3 H7 N)x
CCI PMS

CM 3

CRN 107-11-9
CMF C3 H7 N



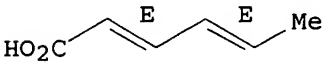
RN 462654-89-3 HCAPLUS

CN 2,4-Hexadienoic acid, (2E,4E)-, compd. with ethenamine homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 110-44-1
CMF C6 H8 O2

Double bond geometry as shown.

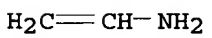


CM 2

CRN 26336-38-9
CMF (C2 H5 N)x
CCI PMS

CM 3

CRN 593-67-9
CMF C2 H5 N



IT **462654-88-2P**, Polyallylamine sorbate **462654-89-3P**
, Polyvinylamine sorbate
(ink-receptor layers; ink-jet printing sheets with improved light resistance and image d. after long-term storage)

L41 ANSWER 4 OF 25 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2001:417272 HCAPLUS
DOCUMENT NUMBER: 135:38875
TITLE: Non-aromatic chromophores for use in polymer **anti-reflective** coatings
INVENTOR(S): Shao, Xie; Cox, Robert; Deshpande, Shreeram V.; Flaim, Tony D.; Puligadda, Rama
PATENT ASSIGNEE(S): Brewer Science, Inc., USA
SOURCE: PCT Int. Appl., 38 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001040865	A1	20010607	WO 2000-US25985	2000 0920
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1266264	A1	20021218	EP 2000-965290	2000 0920
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL				
JP 2003515793	T2	20030507	JP 2001-542270	2000 0920

US 2002045125	A1	20020418	US 2001-961751	2001 0924
US 2004067441	A1	20040408	US 2003-689482	2003 1020
PRIORITY APPLN. INFO.:			US 1999-450966	A 1999 1130
			WO 2000-US25985	W 2000 0920
			US 2001-961751	B1 2001 0924

AB An improved light attenuating compound for use in the production of microdevices is provided. Broadly, the light attenuating compound is non-aromatic and can be directly incorporated (either phys. or chemical) into photolithog. compns. such as bottom **anti-reflective** coating process materials (BARC) and contact or via hole fill materials. The preferred non-aromatic compds. of the invention are conjugated aliphatic and alicyclic compds. which greatly enhance the plasma etch rate of the composition Furthermore, the light attenuating compds. are useful for absorbing light at shorter wavelengths. In one embodiment, the inventive compds. can be polymerized so as to serve as both the polymer binder of the composition as well as the light absorbing constituent.

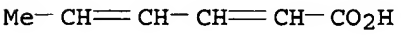
IT **343626-15-3P**
(non-aromatic chromophores for use in polymer **anti-reflective coatings**)

RN 343626-15-3 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, oxiranylmethyl ester, homopolymer, 2,4-hexadienoate (9CI) (CA INDEX NAME)

CM 1

CRN 22500-92-1
CMF C6 H8 O2

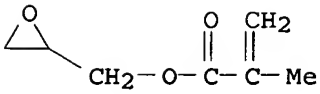


CM 2

CRN 25067-05-4
CMF (C7 H10 O3)x
CCI PMS

CM 3

CRN 106-91-2
CMF C7 H10 O3



IT **343626-15-3P**
(non-aromatic chromophores for use in polymer **anti-reflective coatings**)
REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L41 ANSWER 5 OF 25 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2001:299090 HCAPLUS
DOCUMENT NUMBER: 134:334331
TITLE: Liquid crystal-alignment film and its preparation
INVENTOR(S): Sakai, Takeya; Kawatsuki, Yoshihiro
PATENT ASSIGNEE(S): Hayashi Telempu Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 5
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001117102	A2	20010427	JP 1999-300455	19991022
TW 500747	B	20020901	TW 2000-89100508	20000114
US 6696114	B1	20040224	US 2000-484698	20000118
KR 2000053526	A	20000825	KR 2000-2339	20000119

PRIORITY APPLN. INFO.:
JP 1999-9997 A 19990119
JP 1999-74898 A 19990319
JP 1999-223916 A 19990806
JP 1999-242421 A 19990830
JP 1999-300455 A 19991022

1022

AB The alignment film is prepared by (1) applying a polymer capable of photoinduced orientation on a substrate, and (2) irradiating an UV containing both the complete and incomplete polarized light onto the polymer to obtain liquid crystal-alignment ability. The polymer may be anisotropically dimerized by the UV radiation. The polymer may have a side chain selected from (substituted) β-(2-furyl)acryloyl, cinnamoyl, and cinnamylideneacetoyl groups. The polymer may have a main chain of a polyacrylate, polymethacrylate, polysiloxane, etc. Large alignment film can be manufactured by the method in high productivity. Thus, 4-Hydroxyethoxy-4'-(6'-biphenyloxyhexyl) methacrylate cinnamate homopolymer was applied on a substrate coated with an ITO, then nonpolar UV was irradiated onto the polymer via a declinedly arranged quartz plate to form an alignment film. A TN liquid crystal cell using the alignment film was manufactured

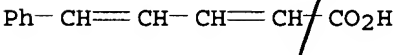
IT **336130-01-9P**, 4-(2-Hydroxyethoxy)-4'-(6'-biphenyloxyhexyl) methacrylate homopolymer cinnamylideneacetate ester
336130-02-0P, 4-(2-Hydroxyethoxy)-4'-(6'-biphenyloxyhexyl) methacrylate homopolymer α-cyanocinnamylideneacetate ester
(preparation and dimerization; in preparation of liquid crystal-alignment film by irradiating UV of low polarization degree onto polymer capable of photoinduced dimerization or orientation)

RN 336130-01-9 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 6-[[4'-(2-hydroxyethoxy)[1,1'-biphenyl]-4-yl]oxy]hexyl ester, homopolymer, 5-phenyl-2,4-pentadienoate (9CI) (CA INDEX NAME)

CM 1

CRN 1552-94-9
CMF C11 H10 O2

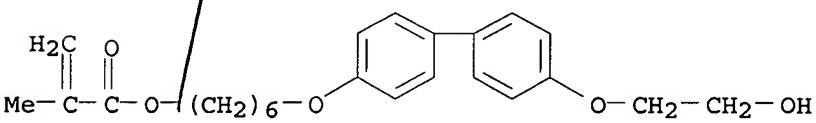


CM 2

CRN 229617-68-9
CMF (C24 H30 O5)x
CCI PMS

CM 3

CRN 183234-70-0
CMF C24 H30 O5



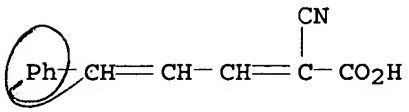
RN 336130-02-0 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 6-[[4'-(2-hydroxyethoxy)[1,1'-biphenyl]-4-yl]oxy]hexyl ester, homopolymer, 2-cyano-5-phenyl-2,4-

pentadienoate (9CI) (CA INDEX NAME)

CM 1

CRN 24139-57-9
CMF C12 H9 N O2

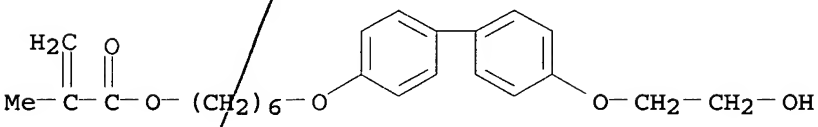


CM 2

CRN 229617-68-9
CMF (C24 H30 O5)x
CCI PMS

CM 3

CRN 183234-70-0
CMF C24 H30 O5



IT **336130-01-9P**, 4-(2-Hydroxyethoxy)-4'-(6'-biphenyloxyhexyl) methacrylate homopolymer cinnamylideneacetate ester
336130-02-0P, 4-(2-Hydroxyethoxy)-4'-(6'-biphenyloxyhexyl) methacrylate homopolymer α-cyanocinnamylideneacetate ester
(preparation and dimerization; in preparation of liquid crystal-alignment film by irradiating UV of low polarization degree onto polymer capable of photoinduced dimerization or orientation)

L41 ANSWER 6 OF 25 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2000:599451 HCAPLUS
DOCUMENT NUMBER: 133:200871
TITLE: Image-forming material, image formation, lithographic printing plate, and its production
INVENTOR(S): Sakaguchi, Hiroshi; Doi, Kunihiro
PATENT ASSIGNEE(S): Mitsubishi Paper Mills, Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 10 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000233581	A2	20000829	JP 1999-38551	1999

0217

PRIORITY APPLN. INFO.: JP 1999-38551

1999
0217

AB The title image forming material contains (i) a polymer having diene structure-containing groups as a pendant and a compound AaR (A = dienophile groups; R = linking group; a = 2-6) in a state that the 2 components are isolated, (ii) a polymer having dienophile groups as pendants and a compound BbR2 (B = diene structure; R2 = linking group; b = 2-6) in a state that the 2 components are isolated or (iii) a OH-containing polymer and a compound A2cR3 [A2 = (substituted) maleimide group; R3 = linking group; c = 2-6]. The material is imagewise heat-treated followed by removing the unheated portions to form an image. Lithog. printing plates using the materials are also claimed, which are manufactured by attaching a solution containing the each compound to a substrate on which the each polymer has been coated by an ink-jet recording process in the each case of (i) to (iii). The material shows high storage stability and provides images with high mech. strength.

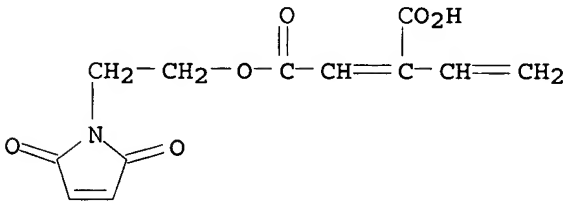
IT **289663-84-9P**
(heat-sensitive lithog. plate material containing diene and dienophile)

RN 289663-84-9 HCAPLUS

CN 2-Butenedioic acid, 2-ethenyl-, polymer with 4-[2-(2,5-dihydro-2,5-dioxo-1H-pyrrol-1-yl)ethyl] hydrogen 2-ethenyl-2-butenedioate and N,N''-1,6-hexanediylbis[N'-(2-furanylmethyl)urea] (9CI) (CA INDEX NAME)

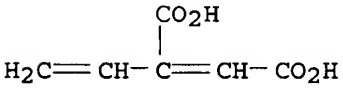
CM 1

CRN 289663-83-8
CMF C12 H11 N O6



CM 2

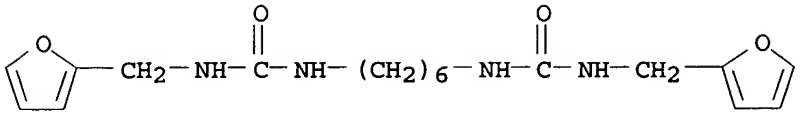
CRN 289663-82-7
CMF C6 H6 O4



CM 3

CRN 199855-73-7

CMF C18 H26 N4 O4



IT **289663-84-9P**
(heat-sensitive lithog. plate material containing diene and dienophile)

L41 ANSWER 7 OF 25 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1997:810256 HCAPLUS
DOCUMENT NUMBER: 128:23255
TITLE: 2-Cyano-2,4-pentadienoic acid acrylic ester reactive monomers, manufacture thereof, adhesives, coatings, compositions, polymers, and electron-beam and photoresists using the same
INVENTOR(S): Kotzev, Dimiter Lubomirov
PATENT ASSIGNEE(S): Chemence Limited, UK
SOURCE: Brit. UK Pat. Appl., 22 pp.
CODEN: BAXXDU
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 2311520	A1	19971001	GB 1996-6328	1996 0326
GB 2311520	B2	19990811		
US 2004249099	A1	20041209	US 2004-802074	2004 0315

PRIORITY APPLN. INFO.:	GB 1996-6328	A	1996 0326
	US 1997-55791P	P	1997 0815
	US 1998-131275	B1	1998 0810

OTHER SOURCE(S): MARPAT 128:23255
AB The title esters CH2:CHCH:C(CN)CO2R2O2CCR1:CH2 (R1 = H, Me; R2 = alkyl, alkenyl, alkynyl, alkoxyalkyl, polyoxyalkyl, aryl, cycloalkyl, heterocyclic, with or without substituents including halogens) are synthesized by reaction of acrolein with the corresponding (meth)aryloyl(poly)oxyalkyl cyanoacetates. The resultant reactive monomers containing multiple unsatn. are capable of anionic, cationic and free-radical polymerization yielding from rubbery

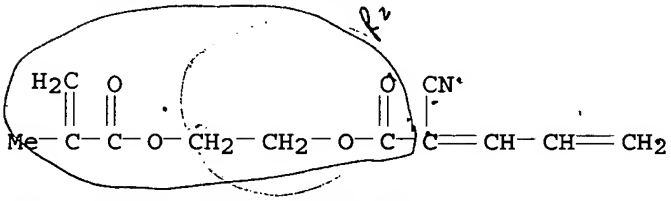
or thermoplastic to highly crosslinked products depending on the degree of cure. The reactive monomers can be used for structural adhesives both in industry and medicine, for coatings, and in photo or electron beam resist manufacture

IT **199331-01-6P 199331-03-8P 199331-05-0P 199331-07-2P 199342-80-8P 199342-84-2P**
(cyanopentadienoic acid acrylic ester reactive monomers, manufacture thereof, adhesives, **coatings**, compns., polymers, and electron-beam and photoresists using the same)

RN 199331-01-6 HCAPLUS
CN 2,4-Pentadienoic acid, 2-cyano-, 2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

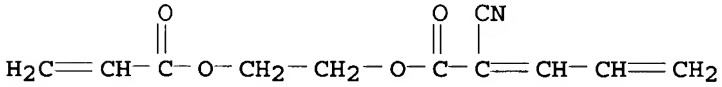
CRN 53628-79-8
CMF C12 H13 N O4



RN 199331-03-8 HCAPLUS
CN 2,4-Pentadienoic acid, 2-cyano-, 2-[(1-oxo-2-propenyl)oxy]ethyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 199331-02-7
CMF C11 H11 N O4



RN 199331-05-0 HCAPLUS
CN 2,4-Pentadienoic acid, 2-cyano-, 20-methyl-19-oxo-3,6,9,12,15,18-hexaoxaheneicos-20-en-1-yl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 199331-04-9
CMF C22 H33 N O9

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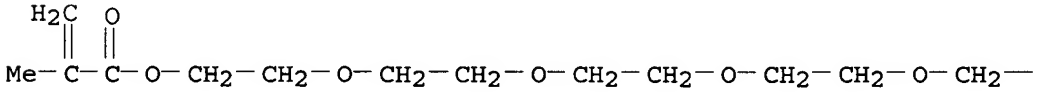

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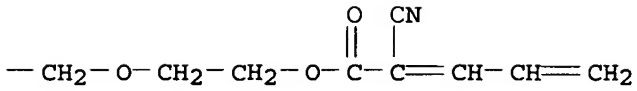
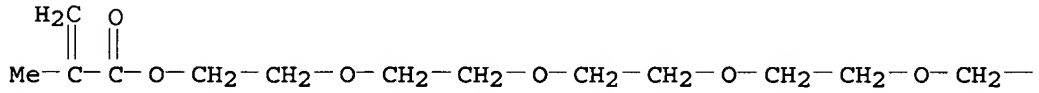


RN 199331-07-2 HCAPLUS
CN 2,4-Pentadienoic acid, 2-cyano-, 17-methyl-16-oxo-3,6,9,12,15-pentaoxaoctadec-17-en-1-yl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 199331-06-1
CMF C20 H29 N O8

PAGE 1-A



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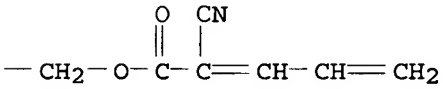


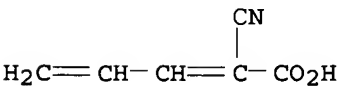
RN 199342-80-8 HCAPLUS
CN 2,4-Pentadienoic acid, 2-cyano-, ester with 1,2-propanediol mono(2-methyl-2-propenoate), homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 199342-78-4
CMF C13 H15 N O4
CCI IDS

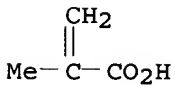
CM 2

CRN 44806-34-0
CMF C6 H5 N O2



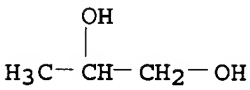
CM 3

CRN 79-41-4
CMF C4 H6 O2



CM 4

CRN 57-55-6
CMF C3 H8 O2



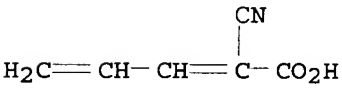
RN 199342-84-2 HCAPLUS
CN 2,4-Pentadienoic acid, 2-cyano-, ester with 1,2-propanediol mono-2-propenoate, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 199342-82-0
CMF C12 H13 N O4
CCI IDS

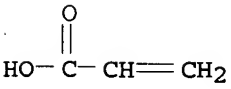
CM 2

CRN 44806-34-0
CMF C6 H5 N O2



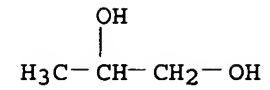
CM 3

CRN 79-10-7
CMF C3 H4 O2



CM 4

CRN 57-55-6
CMF C3 H8 O2



IT **199331-01-6P 199331-03-8P 199331-05-0P**
199331-07-2P 199342-80-8P 199342-84-2P
(cyanopentadienoic acid acrylic ester reactive monomers, manufacture thereof, adhesives, **coatings**, compns., polymers, and electron-beam and photoresists using the same)

L41 ANSWER 8 OF 25 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1997:617047 HCAPLUS
DOCUMENT NUMBER: 127:285953
TITLE: Waterless lithographic printing plate precursor having increased elasticity
INVENTOR(S): Suezawa, Mitsuru; Kokuni, Masahiro; Ikeda, Norimasa
PATENT ASSIGNEE(S): Toray Industries, Inc., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 17 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09230585	A2	19970905	JP 1996-5912	1996 0117
PRIORITY APPLN. INFO.:			JP 1995-15190 A	1995 0201
			JP 1995-335107 A	1995 1222

AB The plate precursor comprises at least a photodimerization-type presensitized layer and a silicone rubber layer on a substrate, wherein the photodimerization-type layer has the following stretch properties after the exposure: (1) the initial modulus of elasticity 5-75 kgf/mm2; and preferably (2) the breakage elongation ≥ 10 %. The plate precursor provided excellent image reproduction and printability because of the increased elasticity.

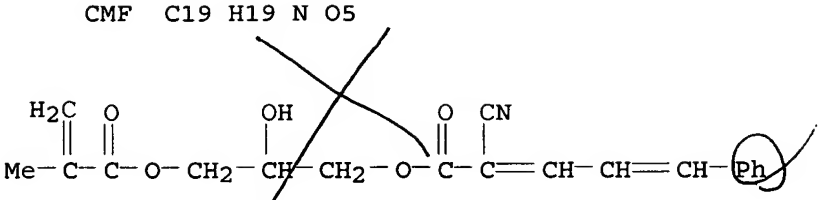
IT **196493-17-1P**
(photodimerizable compound in waterless lithog. printing plate precursor having increased elasticity)

RN 196493-17-1 HCAPLUS
CN 2,4-Pentadienoic acid, 2-cyano-5-phenyl-, 2-hydroxy-3-[(2-methyl-1-oxo-2-propenyl)oxy]propyl ester, polymer with dodecyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

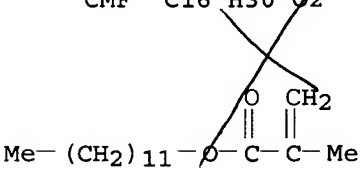
CRN 97534-37-7

CMF C19 H19 N O5



CM 2

CRN 142-90-5
CMF C16 H30 O2



IT **196493-17-1P**
(photodimerizable compound in waterless lithog. printing plate precursor having increased elasticity)

L41 ANSWER 9 OF 25 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1997:85528 HCAPLUS
DOCUMENT NUMBER: 126:173013
TITLE: Colorants and intermediates therefor having branched poly(oxyalkylene) moieties
INVENTOR(S): Hines, John B.; Moody, David J.; Kluger, Edward W.
PATENT ASSIGNEE(S): Milliken Research Corp., USA
SOURCE: U.S., 91 pp., Cont. of U.S. Ser. No. 887,109, abandoned
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5591833	A	19970107	US 1993-104276	1993 0810
PRIORITY APPLN. INFO.:			US 1990-546206 B1	1990 0628
			US 1992-887109 B1	1992 0519

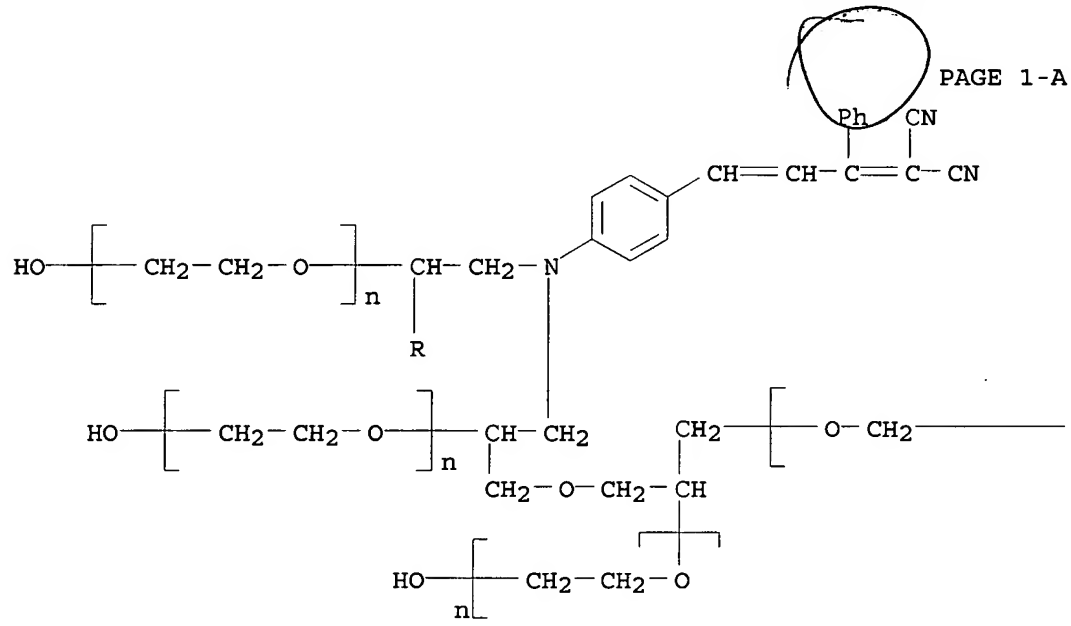
AB The compds., especially useful as fugitive colorants for carpet manufacture, or as intermediates for their manufacture, have the formula CZn [C is a chromophore or segment thereof having n nucleophilic sites to which the Z are attached; n = 1-8; the Z contain ≥60 weight% poly(oxyalkylene) which is comprised of (a) ≥1 segment of 2-6 glycidol residues (Zn contains 2-20 glycidol residues) and (b)

residues of ethylene oxide (EO), propylene oxide (PO), and/or butylene oxide (BO), there being a total of 10-600 of said EO, PO and/or BO residues, ≥75 mol% of which are EO residues; the molar ratio of EO residues to glycidol residues is 4-75]. Thus, 1.34 mol PhNH2 was condensed with 5.36 mol glycidol, and the product (1.0 mol) was condensed with 200 mol EO to give an intermediate with average mol. weight 8812, which was coupled with diazotized 2-aminothiazole to give an orange oil with λmax 493 nm.

IT **187096-93-1P**
(red; colorants and intermediates having branched poly(oxyalkylene) moieties)

RN 187096-93-1 HCAPLUS

CN Poly(oxy-1,2-ethanediyl), α-hydro-ω-hydroxy-, ether with [3-[4-[bis[3-(2,3-dihydroxypropoxy)-2-hydroxypropyl]amino]phenyl]-1-phenyl-2-propenylidene]propanedinitrile (6:1) (9CI) (CA INDEX NAME)



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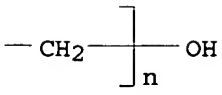

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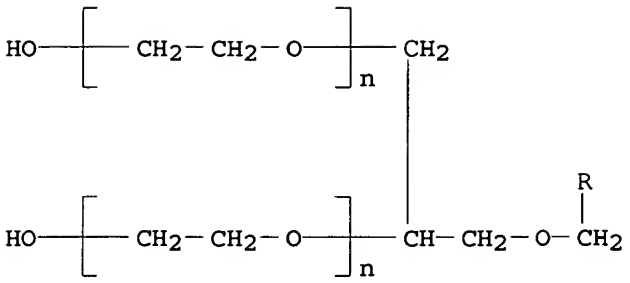


IT **187096-93-1P**
(red; colorants and intermediates having branched poly(oxyalkylene) moieties)

L41 ANSWER 10 OF 25 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1995:677718 HCAPLUS
DOCUMENT NUMBER: 123:183349
TITLE: Silver halide photographic material with protective layer incorporating fluorine-containing surfactants
INVENTOR(S): Mochizuki, Yoshihiro; Ueda, Eiichi
PATENT ASSIGNEE(S): Konishiroku Photo Ind, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 35 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 07084335	A2	19950331	JP 1993-230476	19930916

PRIORITY APPLN. INFO.: JP 1993-230476 19930916

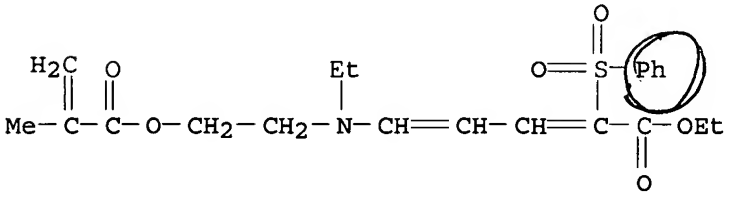
AB The photog. materials having Ag halide emulsions and light-insensitive layers are characterized by (1) a light-insensitive layer incorporating a F-containing anionic surfactant F(CF2)x(CH2)ySO2N(R1)BD (R1 = H, C1-5 alkyl; D = CO2M, SO3M; M = alkali metal, ammonium) and a F-containing cationic surfactant F(CF2)lSO2N(R2)(CH2)mOn(CH2)kN-R3R4R5.X- (R2 = H, C1-5 alkyl; R3, R4, R5 = H, C1-5 alkyl, hydroxyalkyl), and (2) the light-insensitive and/or emulsion layers contain an UV-absorbing polymer latex with recurring unit CH2:C(R6)XGmJnZ, (R6 = H, C1-4 alkyl; X = SO2NH, CONH, CO2, phenylene; G = CONH, NHCO, SO2NH, etc.). It is resistant to sticking and abrasion, and is insensitive to pressure application. It also has a good antistatic property.

IT **89208-32-2P 91733-54-9P**
(UV-absorbing; Ag halide photog. material with protective layer containing F-containing cationic and anionic surfactants)

RN 89208-32-2 HCAPLUS
CN 2,4-Pentadienoic acid, 5-[ethyl[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]amino]-2-(phenylsulfonyl)-, ethyl ester, polymer with methyl 2-propenoate (9CI) (CA INDEX NAME)

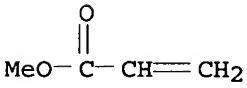
CM 1

CRN 89206-22-4
CMF C21 H27 N O6 S



CM 2

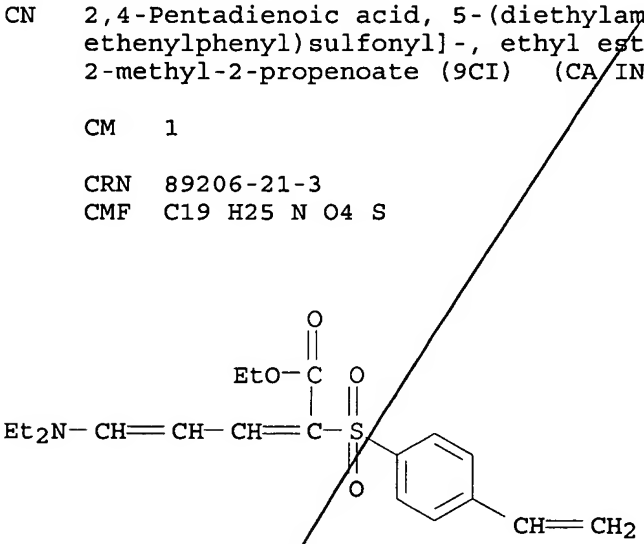
CRN 96-33-3
CMF C4 H6 O2



RN 91733-54-9 HCAPLUS
CN 2,4-Pentadienoic acid, 5-(diethylamino)-2-[(4-ethenylphenyl)sulfonyl]-, ethyl ester, polymer with methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

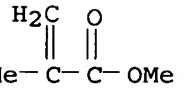
CM 1

CRN 89206-21-3
CMF C19 H25 N O4 S



CM 2

CRN 80-62-6
CMF C5 H8 O2



IT **89208-32-2P 91733-54-9P**
(UV-absorbing; Ag halide photog. material with protective layer containing F-containing cationic and anionic surfactants)

L41 ANSWER 11 OF 25 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1995:314139 HCAPLUS
DOCUMENT NUMBER: 122:83820
TITLE: Unsaturated acid group-containing polyesters, their preparation and use as hardeners for epoxy resins
INVENTOR(S): Pfeil, Armin; Oberressl, Paul; Illgen, Reiner Kurt
PATENT ASSIGNEE(S): Hoechst A.-G., Germany
SOURCE: Ger. Offen., 6 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 4242052	A1	19940616	DE 1992-4242052	19921214
EP 603621	A2	19940629	EP 1993-119589	19931206
EP 603621	A3	19941019		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, NL, PT, SE				
US 5420227	A	19950530	US 1993-166312	19931210
JP 06279576	A2	19941004	JP 1993-312178	19931213

PRIORITY APPLN. INFO.: DE 1992-4242052 A 19921214

AB The polyesters are based on polyols and unsatd. polycarboxylic acids or their anhydrides and conjugated dienoic acids. The polyesters are readily processable and may be incorporated into coating compns. Thus, 294 g maleic anhydride was condensed with 135 g 1,4-butanediol to acid number 432. The product was heated at 120-150° with 336 g sorbic acid to give a polyester suitable for crosslinking of a bisphenol A-epichlorohydrin resin for can coating.

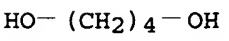
IT **160480-27-3P 160480-28-4P 160480-29-5P**
160480-31-9P 160480-33-1P 160480-35-3P
(preparation of unsatd. polyesters as hardeners for epoxy **coatings**)

RN 160480-27-3 HCAPLUS

CN 2,4-Hexadienoic acid, (E,E)-, polymer with 1,4-butanediol and 2,5-furandione (9CI) (CA INDEX NAME)

CM 1

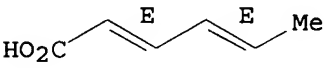
CRN 110-63-4
CMF C4 H10 O2



CM 2

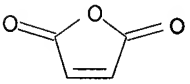
CRN 110-44-1
CMF C6 H8 O2

Double bond geometry as shown.



CM 3

CRN 108-31-6
CMF C4 H2 O3

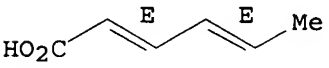


RN 160480-28-4 HCAPLUS
CN 2,4-Hexadienoic acid, (E,E)-, polymer with 2,5-furandione and 1,2-propanediol (9CI) (CA INDEX NAME)

CM 1

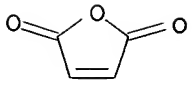
CRN 110-44-1
CMF C6 H8 O2

Double bond geometry as shown.



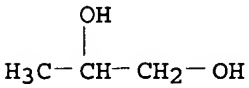
CM 2

CRN 108-31-6
CMF C4 H2 O3



CM 3

CRN 57-55-6
CMF C3 H8 O2

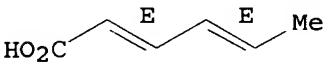


RN 160480-29-5 HCAPLUS
CN 2,4-Hexadienoic acid, (E,E)-, polymer with 1,2-ethanediol and 2,5-furandione (9CI) (CA INDEX NAME)

CM 1

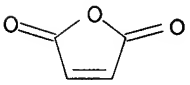
CRN 110-44-1
CMF C6 H8 O2

Double bond geometry as shown.



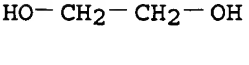
CM 2

CRN 108-31-6
CMF C4 H2 O3



CM 3

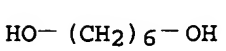
CRN 107-21-1
CMF C2 H6 O2



RN 160480-31-9 HCAPLUS
CN 2,4-Hexadienoic acid, (E,E)-, polymer with 2,5-furandione and 1,6-hexanediol (9CI) (CA INDEX NAME)

CM 1

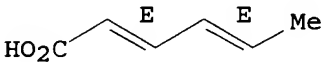
CRN 629-11-8
CMF C6 H14 O2



CM 2

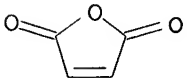
CRN 110-44-1
CMF C6 H8 O2

Double bond geometry as shown.



CM 3

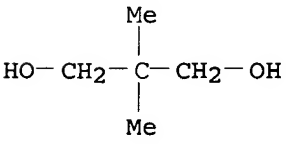
CRN 108-31-6
CMF C4 H2 O3



RN 160480-33-1 HCAPLUS
CN 2,4-Hexadienoic acid, (E,E)-, polymer with 2,2-dimethyl-1,3-propanediol and 2,5-furandione (9CI) (CA INDEX NAME)

CM 1

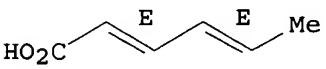
CRN 126-30-7
CMF C5 H12 O2



CM 2

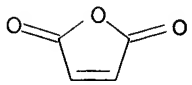
CRN 110-44-1
CMF C6 H8 O2

Double bond geometry as shown.



CM 3

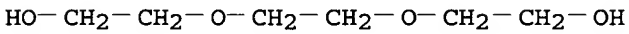
CRN 108-31-6
CMF C4 H2 O3



RN 160480-35-3 HCAPLUS
CN 2,4-Hexadienoic acid, (E,E)-, polymer with 2,2'-[1,2-ethanediylbis(oxy)]bis[ethanol] and 2,5-furandione (9CI) (CA INDEX NAME)

CM 1

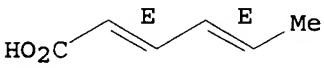
CRN 112-27-6
CMF C6 H14 O4



CM 2

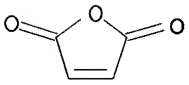
CRN 110-44-1
CMF C6 H8 O2

Double bond geometry as shown.



CM 3

CRN 108-31-6
CMF C4 H2 O3



IT **160480-27-3P 160480-28-4P 160480-29-5P**
160480-31-9P 160480-33-1P 160480-35-3P
(preparation of unsatd. polyesters as hardeners for epoxy **coatings**)

L41 ANSWER 12 OF 25 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1992:184629 HCAPLUS
DOCUMENT NUMBER: 116:184629
TITLE: Light- and heat-sensitive recording material

INVENTOR(S): Yamaguchi, Jun; Washizu, Shintaro; Matsumoto, Hirotaka; Iwakura, Ken; Fukushige, Yuuichi
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Eur. Pat. Appl., 52 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 412570	A2	19910213	EP 1990-115427	19900810
EP 412570	A3	19910731		
EP 412570	B1	19960710		
R: DE, GB				
JP 03072358	A2	19910327	JP 1989-209318	19890811
JP 03087827	A2	19910412	JP 1989-224930	19890831
JP 03157656	A2	19910705	JP 1989-298144	19891116
JP 2588782	B2	19970312		
CA 2023112	AA	19910212	CA 1990-2023112	19900810
CA 2023112	C	20000926		
US 5091280	A	19920225	US 1990-567040	19900813
JP 04211252	A2	19920803	JP 1991-16788	19910118
JP 2701994	B2	19980121		
PRIORITY APPLN. INFO.:			JP 1989-209318 A	19890811
			JP 1989-224930 A	19890831
			JP 1989-298144 A	19891116
			JP 1990-19710 A	19900130

OTHER SOURCE(S): MARPAT 116:184629

AB A light- and heat-sensitive recording material is described comprising a support having thereon ≥1 light- and heat-sensitive layer comprising (1) microcapsules containing an

electron-donating colorless dye and (2) a light-hardenable composition containing a polymerizable vinyl monomer, a photopolymn. initiator, and an electron-accepting developer or containing an electron-accepting polymerizable vinyl monomer and a photopolymn. initiator.

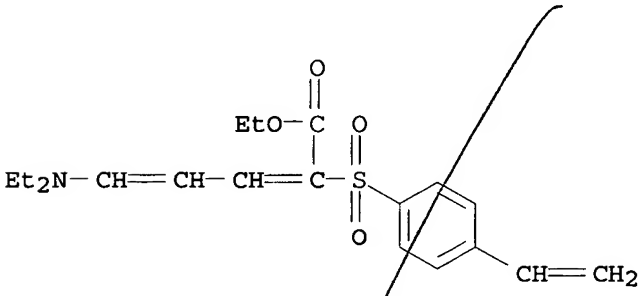
IT **140397-56-4P**
(preparation and use of, as UV absorbent in photohardenable composition)

RN 140397-56-4 HCAPLUS

CN 2,4-Pentadienoic acid, 5-(diethylamino)-2-[(4-ethenylphenyl)sulfonyl]-, ethyl ester, polymer with butyl 2-propenoate and 2-propenoic acid (9CI) (CA INDEX NAME)

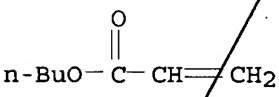
CM 1

CRN 89206-21-3
CMF C19 H25 N O4 S



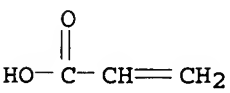
CM 2

CRN 141-32-2
CMF C7 H12 O2



CM 3

CRN 79-10-7
CMF C3 H4 O2



IT **140397-56-4P**
(preparation and use of, as UV absorbent in photohardenable composition)

L41 ANSWER 13 OF 25 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1991:502860 HCAPLUS
DOCUMENT NUMBER: 115:102860
TITLE: Photoresists formed by polymerization of

di-unsaturated monomers
PATENT ASSIGNEE(S): Loctite (Ireland) Ltd., Ire.
SOURCE: Eur. Pat. Appl., 9 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 404446	A2	19901227	EP 1990-306514	19900614
EP 404446	A3	19920129		
EP 404446	B1	19950426		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE				
AT 121854	E	19950515	AT 1990-306514	19900614
CA 2019666	AA	19901223	CA 1990-2019666	19900622
JP 03042662	A2	19910222	JP 1990-165513	19900622
JP 2863276	B2	19990303		
US 5187048	A	19930216	US 1991-751414	19910828

PRIORITY APPLN. INFO.: IE 1989-2044 A 19890623

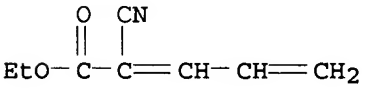
AB A photoresist coating for microlithog. comprises a polymer of R4CH:CHCH:CXY [X,Y = electron withdrawing group; R4 = H or when X and Y both are CN, R4 may be aliphatic hydrocarbyl, aryl, alkaryl]. The resist coating may be applied by vapor deposition of the monomers and exposure to radiation. A pos. or neg. image can be produced depending on the method employed. The material can be used in manufacturing semiconductor devices.

IT **25607-93-6P 28327-68-6P**
(preparation and use of, as photoresist)

RN 25607-93-6 HCAPLUS
CN 2,4-Pentadienoic acid, 2-cyano-, ethyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 13654-65-4
CMF C8 H9 N O2

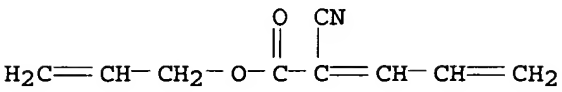


RN 28327-68-6 HCAPLUS

CN 2,4-Pentadienoic acid, 2-cyano-, 2-propenyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 26848-36-2
CMF C9 H9 N O2



IT **25607-93-6P 28327-68-6P**
(preparation and use of, as photoresist)

L41 ANSWER 14 OF 25 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1991:72221 HCAPLUS
DOCUMENT NUMBER: 114:72221
TITLE: Prevention of static mark generation in silver halide photography without causing sweating
INVENTOR(S): Tachibana, Noriki; Kagawa, Nobuaki
PATENT ASSIGNEE(S): Konica Co., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 22 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 63053544	A2	19880307	JP 1986-198527	19860825

PRIORITY APPLN. INFO.: JP 1986-198527 19860825

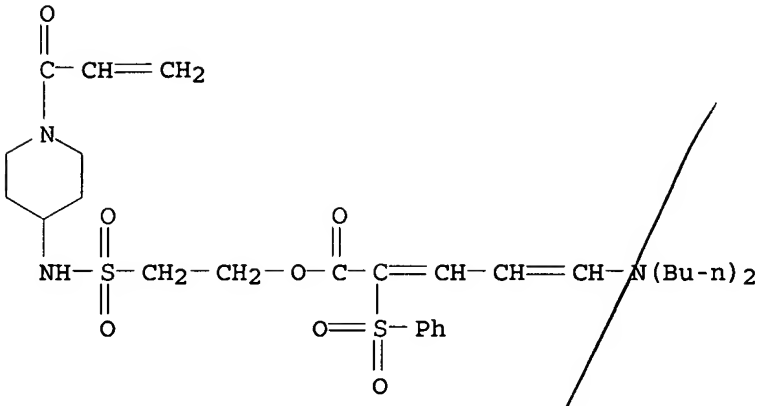
AB In the title material having on a support at least 1 photosensitive emulsion layer, the material contains a polymer derived from repeated units of a monomer R1WC:CR2-X-(Y)m-Q (R1, R2 = H, C1-4 alkyl, halo, CN; W = H, COOR4; X = C1-6 alkylene, C6-12 arylene, O, CONR3, etc.; Y = O, NR5, CO, S, etc.; R3 = C1-6 alkyl, C6-12 aryl, R4, R5, R6 = H, R3; Z = atomic groups needed for forming N-containing ring; m = 0, 1; Q = UV-absorbing group).

IT **131650-67-4P 131650-90-3P**
(preparation and use of, as UV absorbers for silver halide photog. materials)

RN 131650-67-4 HCAPLUS
CN 2,4-Pentadienoic acid, 5-(dibutylamino)-2-(phenylsulfonyl)-, 2-[[[1-(1-oxo-2-propenyl)-4-piperidinyl]amino]sulfonyl]ethyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

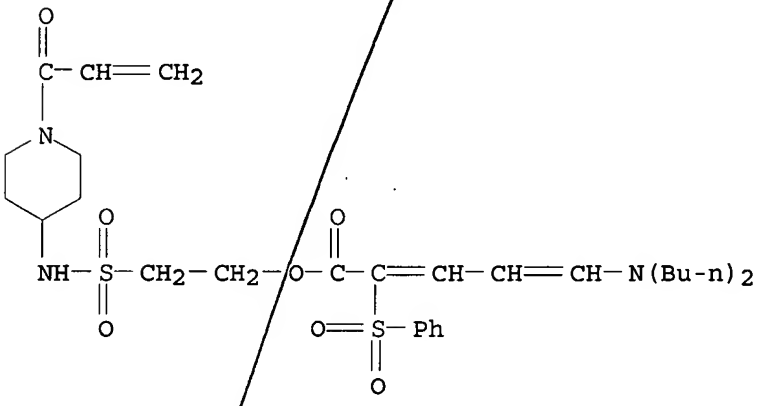
CRN 131650-66-3
CMF C29 H43 N3 O7 S2



RN 131650-90-3 HCAPLUS
CN 2,4-Pentadienoic acid, 5-(dibutylamino)-2-(phenylsulfonyl)-, 2-[[[1-(1-oxo-2-propenyl)-4-piperidinyl]amino]sulfonyl]ethyl ester, polymer with methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

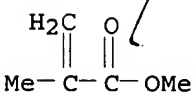
CM 1

CRN 131650-66-3
CMF C29 H43 N3 O7 S2



CM 2

CRN 80-62-6
CMF C5 H8 O2



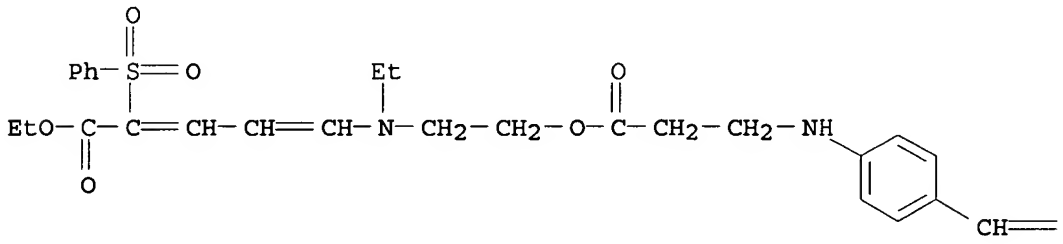
IT **131650-49-2P**
(preparation and use of, as UV absorbers for silver halide photog.

materials, for static mark prevention)
RN 131650-49-2 HCAPLUS
CN 2,4-Pentadienoic acid, 5-[[2-[3-[(4-ethenylphenyl)amino]-1-oxopropoxy]ethyl]ethylamino]-2-(phenylsulfonyl)-, ethyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 131650-48-1
CMF C28 H34 N2 O6 S

PAGE 1-A



PAGE 1-B

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IT **131650-67-4P 131650-90-3P**
(preparation and use of, as UV absorbers for silver halide photog. materials)
IT **131650-49-2P**
(preparation and use of, as UV absorbers for silver halide photog. materials, for static mark prevention)

L41 ANSWER 15 OF 25 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1989:576365 HCAPLUS
DOCUMENT NUMBER: 111:176365
TITLE: Radiation-curable copolymers of p-acetoxystyrene and dialkyl muconates for coatings
INVENTOR(S): Gupta, Balaram
PATENT ASSIGNEE(S): Hoechst Celanese Corp., USA
SOURCE: U.S., 4 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

US 4826890	A	19890502	US 1987-59343	1987 0608
JP 02302406	A2	19901214	JP 1989-111888	1989 0428
JP 06017381	B4	19940309		
PRIORITY APPLN. INFO.:			US 1987-59343	1987 0608

AB The title compns. comprise 10-90:10-90 p-acetoxystyrene-di-C1-4-alkyl muconate copolymers 30-80, polyethylenically unsatd. radiation-polymerizable compds. 20-70, and monoethylenically unsatd. monomer(s) 0-40%. Di-Me muconate 18 was added to a mixture of p-acetoxystyrene 105, PhMe 80, and 2,2'-azobis(2,4-dimethylvaleronitrile) 1.26 parts, heated to 70-80° under N and stirred 20 h, and purified, giving 111.6 parts polymer with glass temperature 106.5°, thermal decomposition temperature 260°, and weight-average mol. weight 57,650. Coating compns. containing similar polymers, monomers such as 1,6-hexanediol diacrylate and tetraethylene glycol diacrylate, and photoinitiators had good UV curing properties.

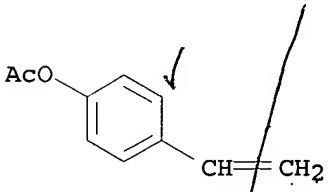
IT **119553-43-4P**, p-Acetoxystyrene-dimethyl muconate copolymer
119553-44-5P, p-Acetoxystyrene-diethyl muconate copolymer
(preparation of, for radiation-curable **coatings**)

RN 119553-43-4 HCAPLUS

CN 2,4-Hexadienedioic acid, dimethyl ester, polymer with 4-ethenylphenyl acetate (9CI) (CA INDEX NAME)

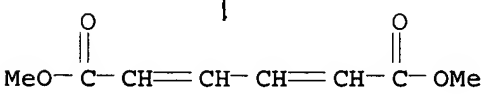
CM 1

CRN 2628-16-2
CMF C10 H10 O2



CM 2

CRN 1733-37-5
CMF C8 H10 O4



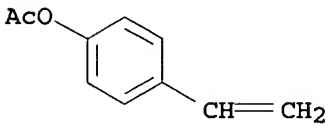
RN 119553-44-5 HCAPLUS

CN 2,4-Hexadienedioic acid, diethyl ester, polymer with

4-ethenylphenyl acetate (9CI) (CA INDEX NAME)

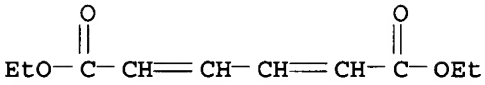
CM 1

CRN 2628-16-2
CMF C10 H10 O2



CM 2

CRN 1441-57-2
CMF C10 H14 O4



IT **119553-43-4P**, p-Acetoxystyrene-dimethyl muconate copolymer
119553-44-5P, p-Acetoxystyrene-diethyl muconate copolymer
(preparation of, for radiation-curable **coatings**)

L41 ANSWER 16 OF 25 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1988:619489 HCAPLUS
DOCUMENT NUMBER: 109:219489
TITLE: Silver halide photographic photosensitive materials with improved antistatic and antisweating properties.
INVENTOR(S): Usagawa, Yasushi; Iwagaki, Masaru
PATENT ASSIGNEE(S): Konica Co., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 20 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 63056651	A2	19880311	JP 1986-200741	19860827

PRIORITY APPLN. INFO.: JP 1986-200741 19860827

AB An UV-absorbing compound residue-containing polyurethane or polyurea is included in the title photog. material (preferably in its surface protective layer) as an antistatic agent and to prevent sweating. The UV-absorbing compound residue-containing polyurethane or polyurea

has the repeating structure Q-(-Y-)n(Q = UV-absorbing compound residue; Y = O, NR; R = H, alkyl, cycloalkyl, Ph; n = 2-4). Isocyanates and an UV-absorbing compound having OH or NH2 groups may be polymerized to give the polyurethane or polyurea.

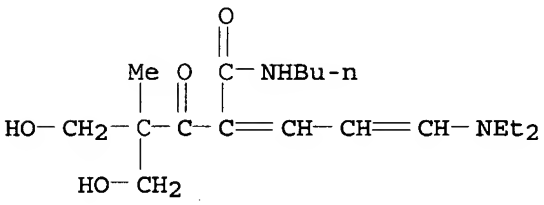
IT **117391-87-4P 117391-89-6P**
(preparation and use of, as photog. antistatic and antisweating agent)

RN 117391-87-4 HCAPLUS

CN 2,4-Pentadienamide, N-butyl-5-(diethylamino)-2-[3-hydroxy-2-(hydroxymethyl)-2-methyl-1-oxopropyl]-, polymer with 1,5-diisocyanatopentane and 5-isocyanato-1-(isocyanatomethyl)-1,3,3-trimethylcyclohexane (9CI) (CA INDEX NAME)

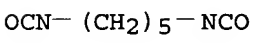
CM 1

CRN 117391-86-3
CMF C18 H32 N2 O4



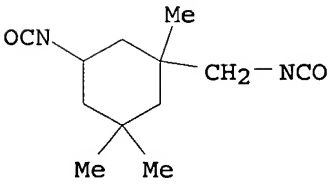
CM 2

CRN 4538-42-5
CMF C7 H10 N2 O2



CM 3

CRN 4098-71-9
CMF C12 H18 N2 O2

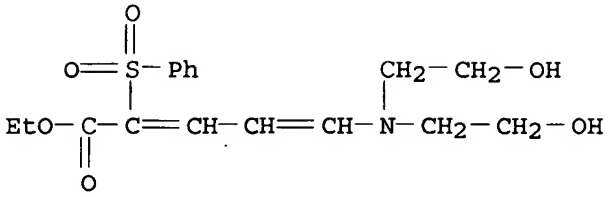


RN 117391-89-6 HCAPLUS

CN 2,4-Pentadienoic acid, 5-[bis(2-hydroxyethyl)amino]-2-(phenylsulfonyl)-, ethyl ester, polymer with 5-isocyanato-1-(isocyanatomethyl)-1,3,3-trimethylcyclohexane (9CI) (CA INDEX NAME)

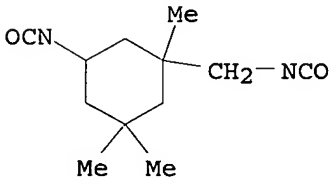
CM 1

CRN 117391-88-5
CMF C17 H23 N O6 S



CM 2

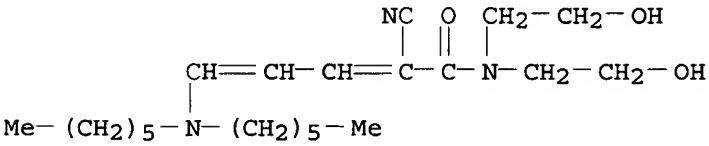
CRN 4098-71-9
CMF C12 H18 N2 O2



IT **117392-09-3P 117392-11-7P**
(preparation of, as photog. antistatic and antisweating agent)
RN 117392-09-3 HCAPLUS
CN 2,4-Pentadienamide, 2-cyano-5-(dihexylamino)-N,N-bis(2-hydroxyethyl)-, polymer with 5-isocyanato-1-(isocyanatomethyl)-1,3,3-trimethylcyclohexane (9CI) (CA INDEX NAME)

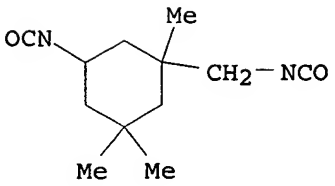
CM 1

CRN 117392-08-2
CMF C22 H39 N3 O3



CM 2

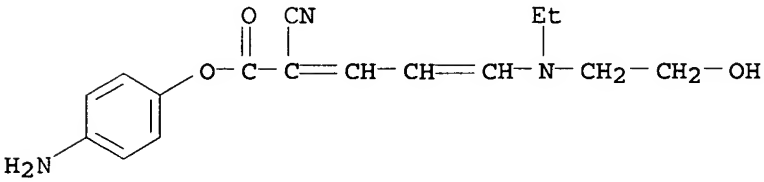
CRN 4098-71-9
CMF C12 H18 N2 O2



RN 117392-11-7 HCAPLUS
CN 2,4-Pentadienoic acid, 2-cyano-5-[ethyl(2-hydroxyethyl)amino]-, 4-aminophenyl ester, polymer with 5-isocyanato-1-(isocyanatomethyl)-1,3,3-trimethylcyclohexane (9CI) (CA INDEX NAME)

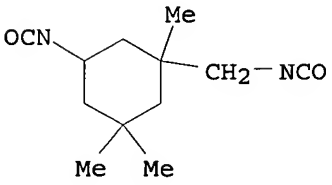
CM 1

CRN 117392-10-6
CMF C16 H19 N3 O3



CM 2

CRN 4098-71-9
CMF C12 H18 N2 O2



IT **117391-87-4P 117391-89-6P**
(preparation and use of, as photog. antistatic and antisweating agent)
IT **117392-09-3P 117392-11-7P**
(preparation of, as photog. antistatic and antisweating agent)

L41 ANSWER 17 OF 25 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1988:195772 HCAPLUS
DOCUMENT NUMBER: 108:195772
TITLE: A new holographic recording medium using the helium-neon laser light
AUTHOR(S): Liang, Guanghe; Jin, Zhangyan
CORPORATE SOURCE: Inst. Polym. Sci., Fujian Teach. Univ.,

Fuzhou, Peop. Rep. China
SOURCE: Zhongguo Jiguang (1987), 14(8), 503-5
CODEN: ZHJIDO; ISSN: 0258-7025
DOCUMENT TYPE: Journal
LANGUAGE: Chinese

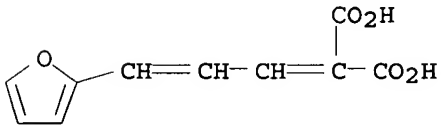
AB The synthesis of neg. photoresist material and its photosensitization by dye addition are discussed. Photosensitization with methylene blue and Wright's stain made its satisfactory for used as relief phase holog. recording medium with He-Ne laser light.

IT **112906-60-2P 112906-88-4P**
(preparation and dye photosensitization of, for relief phase holog. recording material)

RN 112906-60-2 HCAPLUS
CN Propanedioic acid, [3-(2-furanyl)-2-propenylidene]-, polymer with 1,3-propanediol (9CI) (CA INDEX NAME)

CM 1

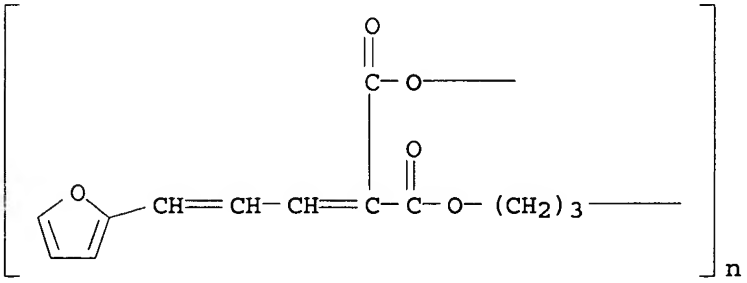
CRN 98946-58-8
CMF C10 H8 O5



CM 2

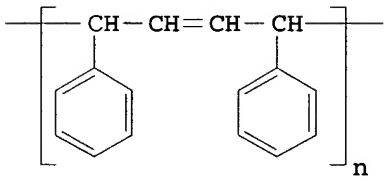
CRN 504-63-2
CMF C3 H8 O2

RN 112906-88-4 HCAPLUS
CN Poly[oxy[2-[3-(2-furanyl)-2-propenylidene]-1,3-dioxo-1,3-propanediyl]oxy-1,3-propanediyl] (9CI) (CA INDEX NAME)



IT **112906-60-2P 112906-88-4P**
(preparation and dye photosensitization of, for relief phase holog. recording material)

L41 ANSWER 18 OF 25 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1987:467861 HCAPLUS
DOCUMENT NUMBER: 107:67861
TITLE: Photochemical transformations of 1,4-diphenyl-1,3-butadienecarboxylic acid
AUTHOR(S): Karminski-Zamola, Grace
CORPORATE SOURCE: Fac. Technol., Univ. Zagreb, Zagreb, YU-41000, Yugoslavia
SOURCE: Journal of the Serbian Chemical Society (1987), 52(2), 65-7
CODEN: JSCSEN; ISSN: 0352-5139
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 107:67861
GI



I

AB From the UV-photolysis of 1,4-diphenyl-1,3-butadienecarboxylic acid in methanolic solution, trans,trans-1,4-diphenyl-1,3-butadiene, trans,cis-1,4-diphenyl-1,3-butadiene, 1,4-diphenyl-1-methoxy-2-butene, and polymer material (I) were isolated.

IT **109464-60-0P**
(formation of, in photolysis of diphenylbutadienecarboxylic acid)

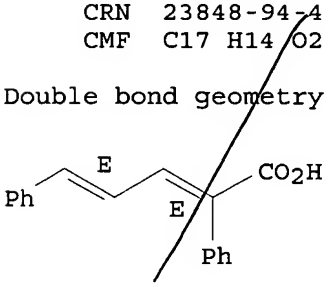
RN 109464-60-0 HCAPLUS

CN Benzeneacetic acid, α-(3-phenyl-2-propenylidene)-, (E,E)-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 23848-94-4
CMF C17 H14 O2

Double bond geometry as shown.



IT **109464-60-0P**
(formation of, in photolysis of diphenylbutadienecarboxylic acid)

L41 ANSWER 19 OF 25 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1987:93638 HCAPLUS
DOCUMENT NUMBER: 106:93638
TITLE: Photosensitive polyesters and their preparation methods

PATENT ASSIGNEE(S): Teijin Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 12 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

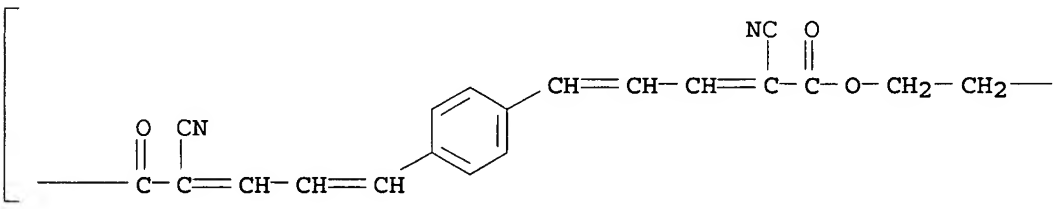
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 58142336	A2	19830824	JP 1982-22777	1982 0217
JP 02044057	B4	19901002		
PRIORITY APPLN. INFO.:			JP 1982-22777	1982 0217

AB The claimed photosensitive polyester has structural repeating units of the formulas, COC(CN):CHCH:CHZCH:CHCH:C(CN)CO2Z1O (I: m-phenylene, p-phenylene; Z1 = C≤20 aliphatic or alicyclic moiety which may contain ether linkage) and COZ2CO2Z1O (Z2 = C≤15 aliphatic, alicyclic, aromatic moiety; Z1 = same as in I) as the main constituent, and the content of I is ≥10 mol%. The above polyester in prepared by condensation of a dicarboxylic acid composition containing ≥10 mol % Z[CH:CHCH:C(CN)CO2H]2 (where Z = same as above) with glycols at 150-250°. The polyester is especially useful for printing plate making and as UV resists.

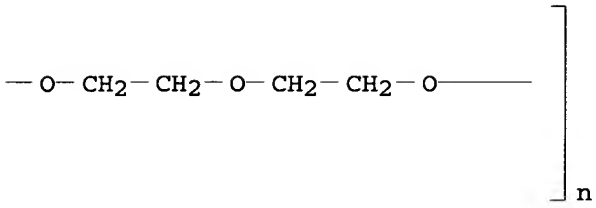
IT **90760-14-8P 93082-25-8P 93082-26-9P**
93082-27-0P 93082-28-1P 93082-29-2P
93082-30-5P 93082-49-6P 93082-50-9P
93082-52-1P 93082-53-2P 93082-54-3P
93082-55-4P 93082-56-5P 93082-57-6P
93082-58-7P 93082-59-8P 93082-64-5P
106779-81-1P
(preparation of, for use in resists and presensitized plates)

RN 90760-14-8 HCAPLUS
CN Poly[oxy-1,2-ethanediyloxy-1,2-ethanediyloxy-1,2-ethanediyloxy(2-cyano-1-oxo-2,4-pentadiene-1,5-diyl)-1,4-phenylene(4-cyano-5-oxo-1,3-pentadiene-1,5-diyl)] (9CI) (CA INDEX NAME)

PAGE 1-A

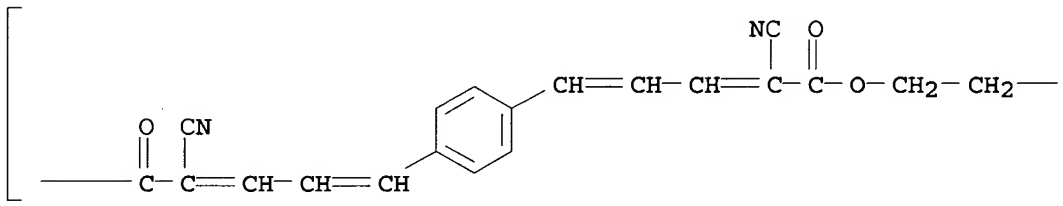


PAGE 1-B

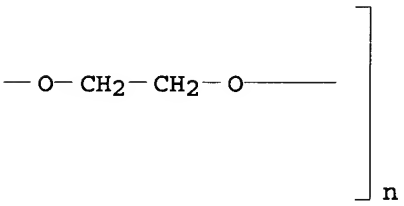


RN 93082-25-8 HCAPLUS
CN Poly[oxy-1,2-ethanediyloxy-1,2-ethanediyloxy(2-cyano-1-oxo-2,4-pentadiene-1,5-diyl)-1,4-phenylene(4-cyano-5-oxo-1,3-pentadiene-1,5-diyl)] (9CI) (CA INDEX NAME)

PAGE 1-A

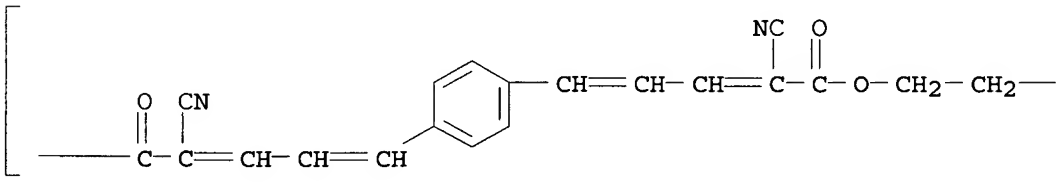


PAGE 1-B

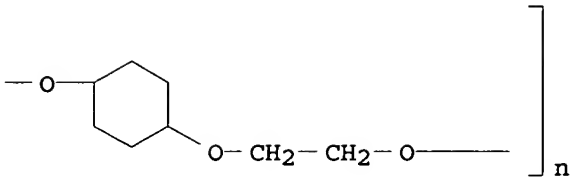


RN 93082-26-9 HCAPLUS
CN Poly[oxy-1,2-ethanediyloxy-1,4-cyclohexanediyloxy-1,2-ethanediyloxy(2-cyano-1-oxo-2,4-pentadiene-1,5-diyl)-1,4-phenylene(4-cyano-5-oxo-1,3-pentadiene-1,5-diyl)] (9CI) (CA INDEX NAME)

PAGE 1-A

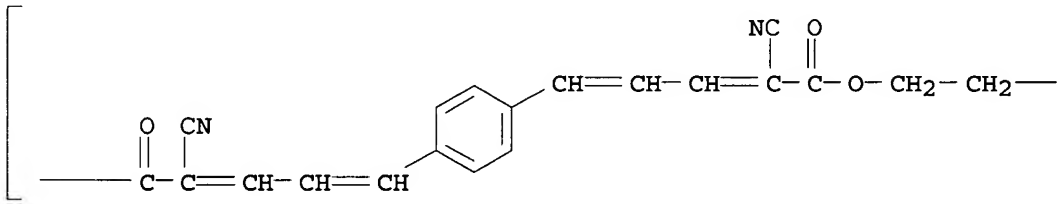


PAGE 1-B

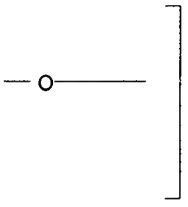


RN 93082-27-0 HCAPLUS
CN Poly[oxy-1,2-ethanediyloxy(2-cyano-1-oxo-2,4-pentadiene-1,5-diyl)-1,4-phenylene(4-cyano-5-oxo-1,3-pentadiene-1,5-diyl)] (9CI) (CA INDEX NAME)

PAGE 1-A

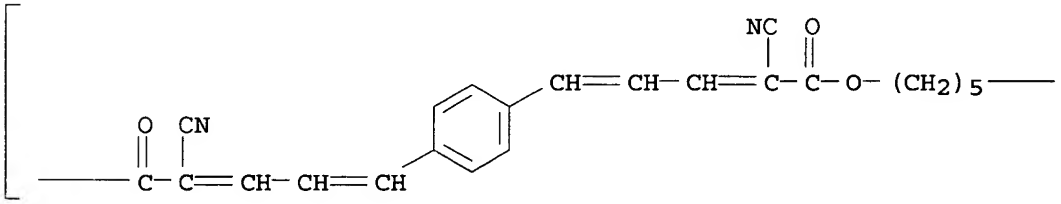


PAGE 1-B



RN 93082-28-1 HCAPLUS
CN Poly[oxy-1,5-pentanediyloxy(2-cyano-1-oxo-2,4-pentadiene-1,5-diyl)-1,4-phenylene(4-cyano-5-oxo-1,3-pentadiene-1,5-diyl)] (9CI) (CA INDEX NAME)

PAGE 1-A



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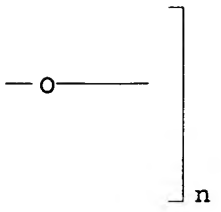
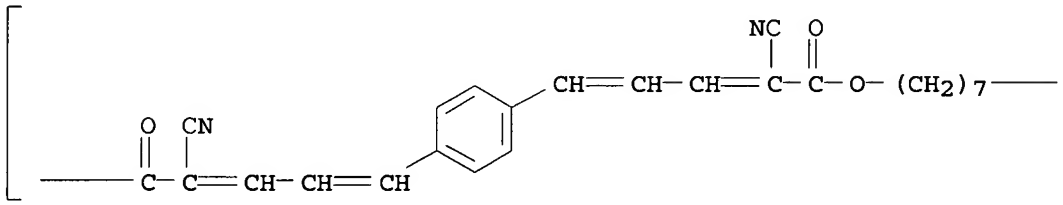


RN 93082-29-2 HCAPLUS
CN Poly[oxy-1,7-heptanediyloxy(2-cyano-1-oxo-2,4-pentadiene-1,5-diyl)-1,4-phenylene(4-cyano-5-oxo-1,3-pentadiene-1,5-diyl)] (9CI) (CA INDEX NAME)

PAGE 1-A



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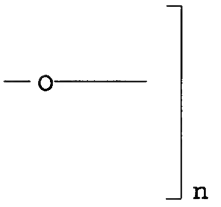
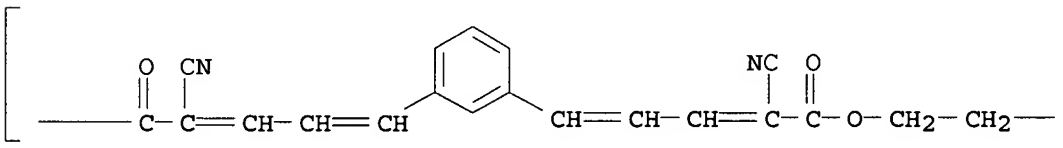


RN 93082-30-5 HCAPLUS
CN Poly[oxy-1,2-ethanediyloxy-1,2-ethanediyloxy-1,2-ethanediyloxy(2-cyano-1-oxo-2,4-pentadiene-1,5-diyl)-1,3-phenylene(4-cyano-5-oxo-1,3-pentadiene-1,5-diyl)] (9CI) (CA INDEX NAME)

PAGE 1-A



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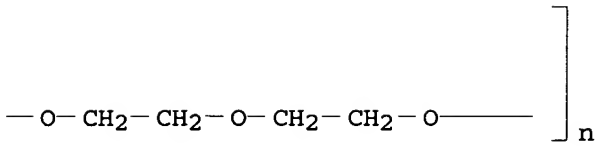
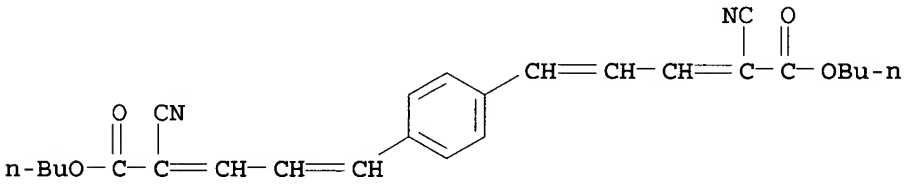


RN 93082-49-6 HCAPLUS
CN Nonanedioic acid, diethyl ester, polymer with dibutyl 5,5'-(1,4-phenylene)bis[2-cyano-2,4-pentadienoate] and 2,2'-[1,2-ethanediylbis(oxy)]bis[ethanol] (9CI) (CA INDEX NAME)

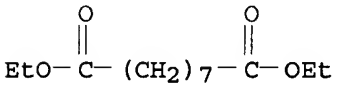
CM 1

CRN 87186-88-7
CMF C26 H28 N2 O4



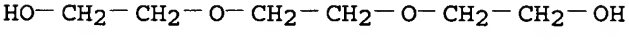
CM 2

CRN 624-17-9
CMF C13 H24 O4



CM 3

CRN 112-27-6
CMF C6 H14 O4

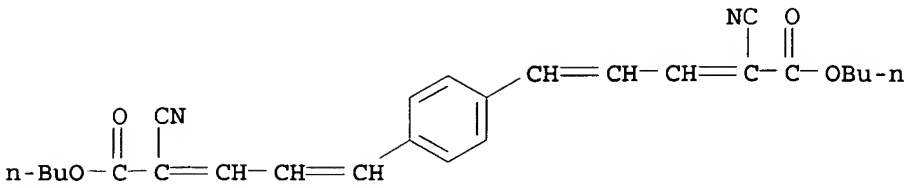


RN 93082-50-9 HCAPLUS
CN 2,4-Pentadienoic acid, 5,5'-(1,4-phenylene)bis[2-cyano-, dibutyl ester, polymer with 1,4-cyclohexanedimethanol and 2,2'-[1,2-ethanediylbis(oxy)]bis[ethanol] (9CI) (CA INDEX NAME)

CM 1

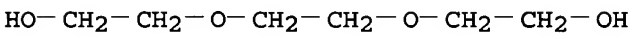
CRN 87186-88-7

CMF C26 H28 N2 O4



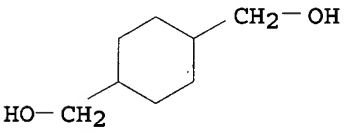
CM 2

CRN 112-27-6
CMF C6 H14 O4



CM 3

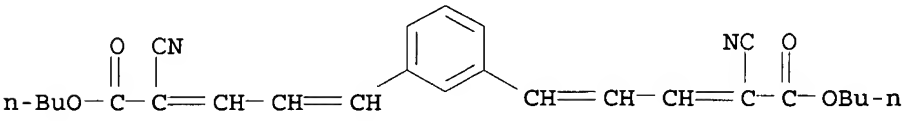
CRN 105-08-8
CMF C8 H16 O2



RN 93082-52-1 HCAPLUS
CN 2,4-Pentadienoic acid, 5,5'-(1,3-phenylene)bis[2-cyano-, dibutyl ester, polymer with 2,2'-[1,2-ethanediylbis(oxy)]bis[ethanol] (9CI) (CA INDEX NAME)

CM 1

CRN 93082-51-0
CMF C26 H28 N2 O4



CM 2

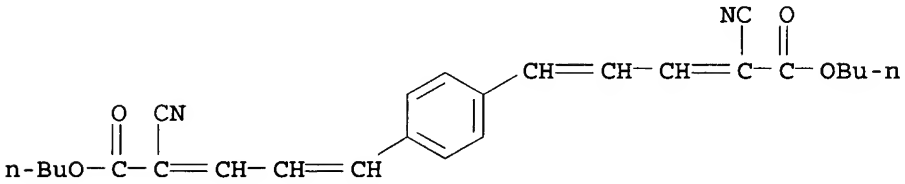
CRN 112-27-6
CMF C6 H14 O4

HO—CH_2—CH_2—O—CH_2—CH_2—O—CH_2—CH_2—OH

RN 93082-53-2 HCAPLUS
CN 2,4-Pentadienoic acid, 5,5'-(1,4-phenylene)bis[2-cyano-, dibutyl ester, polymer with 1,7-heptanediol (9CI) (CA INDEX NAME)

CM 1

CRN 87186-88-7
CMF C26 H28 N2 O4



CM 2

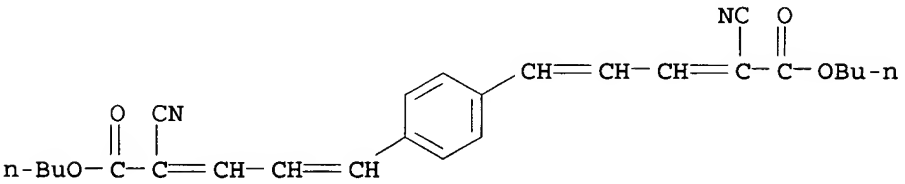
CRN 629-30-1
CMF C7 H16 O2

HO—$(CH_2)_7$—OH

RN 93082-54-3 HCAPLUS
CN 2,4-Pentadienoic acid, 5,5'-(1,4-phenylene)bis[2-cyano-, dibutyl ester, polymer with 1,5-pentanediol (9CI) (CA INDEX NAME)

CM 1

CRN 87186-88-7
CMF C26 H28 N2 O4



CM 2

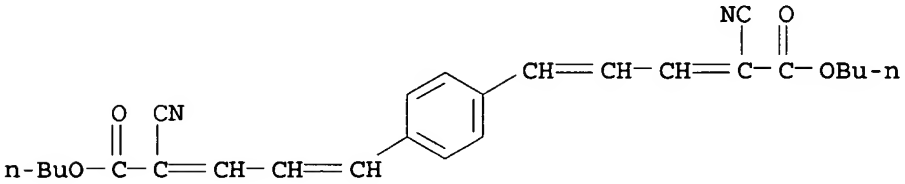
CRN 111-29-5
CMF C5 H12 O2

HO—$(CH_2)_5$—OH

RN 93082-55-4 HCAPLUS
CN 2,4-Pentadienoic acid, 5,5'-(1,4-phenylene)bis[2-cyano-, dibutyl ester, polymer with 1,2-ethanediol (9CI) (CA INDEX NAME)

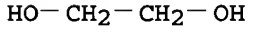
CM 1

CRN 87186-88-7
CMF C26 H28 N2 O4



CM 2

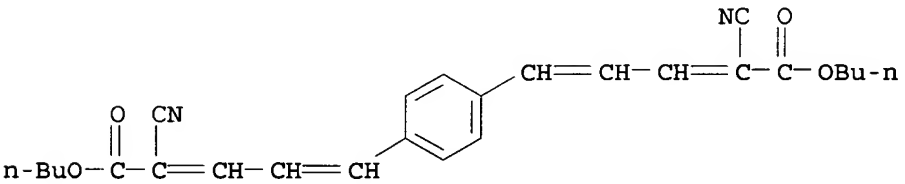
CRN 107-21-1
CMF C2 H6 O2



RN 93082-56-5 HCAPLUS
CN 2,4-Pentadienoic acid, 5,5'-(1,4-phenylene)bis[2-cyano-, dibutyl ester, polymer with 2,2'-oxybis[ethanol] (9CI) (CA INDEX NAME)

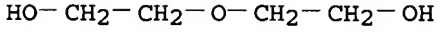
CM 1

CRN 87186-88-7
CMF C26 H28 N2 O4



CM 2

CRN 111-46-6
CMF C4 H10 O3

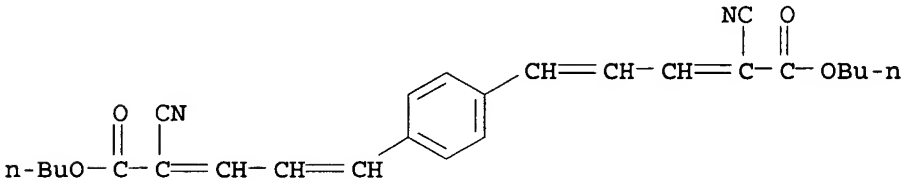


RN 93082-57-6 HCAPLUS

CN 2,4-Pentadienoic acid, 5,5'-(1,4-phenylene)bis[2-cyano-, dibutyl ester, polymer with 2,2'-[1,4-cyclohexanediylbis(oxy)]bis[ethanol] (9CI) (CA INDEX NAME)

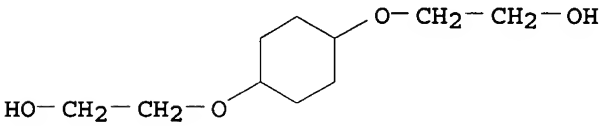
CM 1

CRN 87186-88-7
CMF C26 H28 N2 O4



CM 2

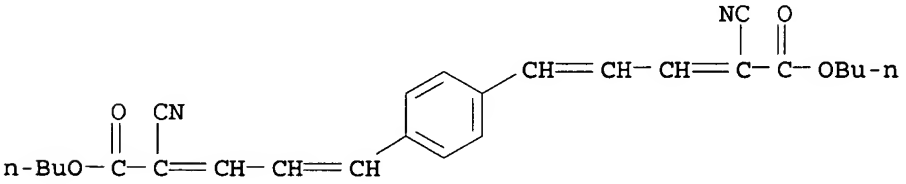
CRN 16394-44-8
CMF C10 H20 O4



RN 93082-58-7 HCAPLUS
CN 2,4-Pentadienoic acid, 5,5'-(1,4-phenylene)bis[2-cyano-, dibutyl ester, polymer with diethyl 3,3'-(1,4-phenylene)bis[2-propenoate] and 2,2'-[1,2-ethanediylbis(oxy)]bis[ethanol] (9CI) (CA INDEX NAME)

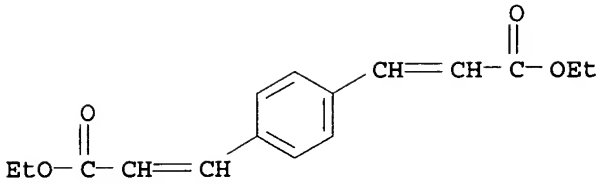
CM 1

CRN 87186-88-7
CMF C26 H28 N2 O4



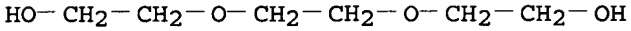
CM 2

CRN 17088-28-7
CMF C16 H18 O4



CM 3

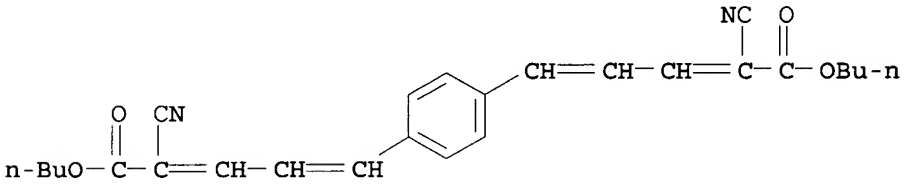
CRN 112-27-6
CMF C6 H14 O4



RN 93082-59-8 HCAPLUS
CN Hexanedioic acid, dimethyl ester, polymer with dibutyl 5,5'-(1,4-phenylene)bis[2-cyano-2,4-pentadienoate] and 2,2'-[1,2-ethanediylbis(oxy)]bis[ethanol] (9CI) (CA INDEX NAME)

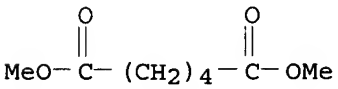
CM 1

CRN 87186-88-7
CMF C26 H28 N2 O4



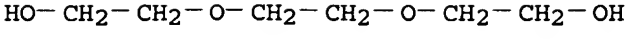
CM 2

CRN 627-93-0
CMF C8 H14 O4



CM 3

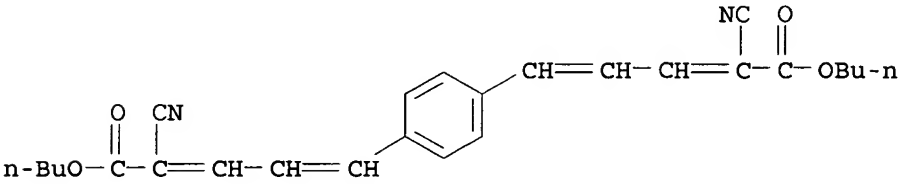
CRN 112-27-6
CMF C6 H14 O4



RN 93082-64-5 HCAPLUS
CN 2,4-Pentadienoic acid, 5,5'-(1,4-phenylene)bis[2-cyano-, dibutyl ester, polymer with 2,2'-[1,2-ethanediylbis(oxy)]bis[ethanol] (9CI) (CA INDEX NAME)

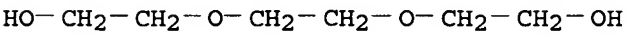
CM 1

CRN 87186-88-7
CMF C26 H28 N2 O4



CM 2

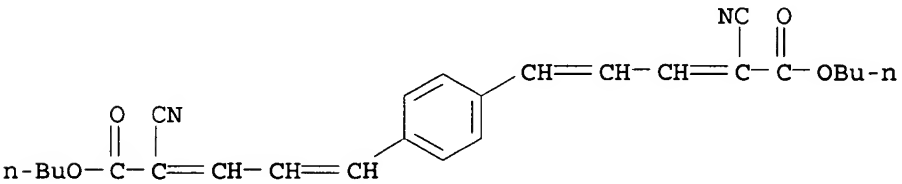
CRN 112-27-6
CMF C6 H14 O4



RN 106779-81-1 HCAPLUS
CN 1,4-Cyclohexanedicarboxylic acid, polymer with dibutyl 5,5'-(1,4-phenylene)bis[2-cyano-2,4-pentadienoate] and 2,2'-[1,2-ethanediylbis(oxy)]bis[ethanol] (9CI) (CA INDEX NAME)

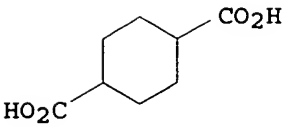
CM 1

CRN 87186-88-7
CMF C26 H28 N2 O4



CM 2

CRN 1076-97-7
CMF C8 H12 O4



CM 3

CRN 112-27-6
CMF C6 H14 O4

HO— CH_2— CH_2— O— CH_2— CH_2— O— CH_2— CH_2— OH

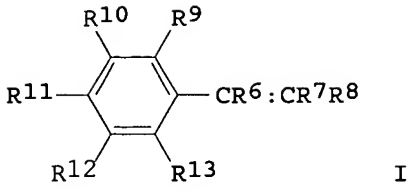
IT **90760-14-8P 93082-25-8P 93082-26-9P**
93082-27-0P 93082-28-1P 93082-29-2P
93082-30-5P 93082-49-6P 93082-50-9P
93082-52-1P 93082-53-2P 93082-54-3P
93082-55-4P 93082-56-5P 93082-57-6P
93082-58-7P 93082-59-8P 93082-64-5P
106779-81-1P
(preparation of, for use in resists and presensitized plates)

L41 ANSWER 20 OF 25 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1985:36598 HCAPLUS
DOCUMENT NUMBER: 102:36598
TITLE: Silver halide photographic photosensitive materials
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 23 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 59068731	A2	19840418	JP 1982-178788	19821012
JP 63065140	B4	19881214		
US 4551420	A	19851105	US 1985-698251	19850201

PRIORITY APPLN. INFO.: JP 1982-178788 A 19821012
US 1983-541183 A1 19831012

GI



I

AB Ag halide photog. materials contain Ag halide particles of diameter ≤0.2 μ and a latex of a polymeric UV absorber having structural repeating units obtained from CH2:CRZZ1mZ2nR1 (Z = CONH, CO2, phenylene; Z1 = C1-20 alkylene, C6-20 arylene; Z2 = CO2, O2C, CONH, NHCO, SO2NH, NHSO2, SO2, O; R = H, C1-4 alkyl, Cl; R1 = moiety from R2NR3CH:CHCH:CR4R5 or I; R2, R3 = H, C1-20 alkyl, C6-20 aryl; R2R3 may combine to form a ring; R4, R5 = CN, CO2R14, CONHR14, COR14, SO2R14; R4R5 may combine R14 as a linkage to complete a ring; R6 = H, C1-20 alkyl; R7, R8 = CN, CO2R15, CONHR15, COR15, SO2R15; R9-R13 = H, halo, C1-20 alkyl, C6-20 aryl, C1-20 alkoxy, C6-20 aryloxy, C1-20 alkythio, C6-20 arylthio, amine, C1-20 alkylamino, C6-20 arylamino, OH, CN, NO2, acylamino, carbamoyl, sulfonyl, sulfoamoyl, sulfonamido, acyloxy, oxycarbonyl; R9R10, R10R11, R11R12, R12R13 combinations may complete 5- or 6-membered ring; I is bonded to Z2 via one of R2-R5 as the linkage, whereas II is bonded to Z2 via one of R6-R12 as the linkage; R14, R15 = H, C1-20 alkyl, C6-20 aryl; n, m = 0, 1). The photog. materials exhibit good antistatic property and antiblocking property. Thus a photog. film support was coated with halation inhibition layer, an interlayer, 2 red-sensitive emulsion layers, 2nd interlayer, 2 green-sensitive emulsion layers, a yellow filter layer, 2 blue-sensitive emulsion layers, 1st protective layer containing Ag(Br, I) particles (0.07 μ average particle size) and 2-methacryloyloxyethyl 2-cyano-3-phenylacrylate-methyl acrylate copolymer, and a 2nd protective layer to give a color photog. film with excellent antistatic and antiblocking property.

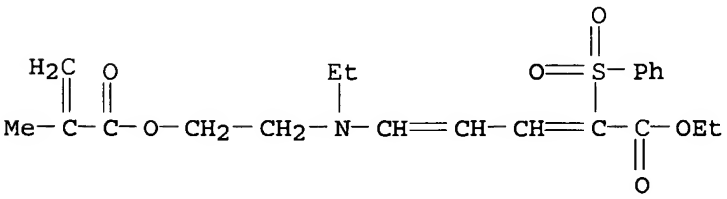
IT **89208-32-2P 91733-54-9P**
(preparation of, as UV absorber, for color photog. films)

RN 89208-32-2 HCAPLUS

CN 2,4-Pentadienoic acid, 5-[ethyl[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]amino]-2-(phenylsulfonyl)-, ethyl ester, polymer with methyl 2-propenoate (9CI) (CA INDEX NAME)

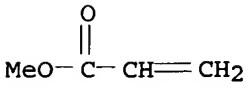
CM 1

CRN 89206-22-4
CMF C21 H27 N O6 S



CM 2

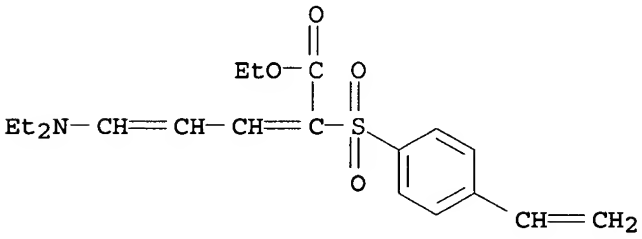
CRN 96-33-3
CMF C4 H6 O2



RN 91733-54-9 HCAPLUS
CN 2,4-Pentadienoic acid, 5-(diethylamino)-2-[(4-ethenylphenyl)sulfonyl]-, ethyl ester, polymer with methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

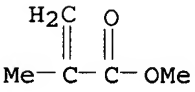
CM 1

CRN 89206-21-3
CMF C19 H25 N O4 S



CM 2

CRN 80-62-6
CMF C5 H8 O2



IT **89208-32-2P 91733-54-9P**
(preparation of, as UV absorber, for color photog. films)

L41 ANSWER 21 OF 25 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1984:501155 HCAPLUS
DOCUMENT NUMBER: 101:101155
TITLE: Multilayer color photographic material with improved antistatic properties
INVENTOR(S): Sugimoto, Naohiko; Kojima, Tetsuro; Mukunoki, Yasuo
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd. , Japan
SOURCE: Ger. Offen., 81 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent

LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 3327464	A1	19840209	DE 1983-3327464	19830729
JP 59023344	A2	19840206	JP 1982-133371	19820730
JP 01027409	B4	19890529		
GB 2127569	A1	19840411	GB 1983-20471	19830729
GB 2127569	B2	19851204		
US 4464462	A	19840807	US 1983-518721	19830729

PRIORITY APPLN. INFO.: JP 1982-133371 A 19820730

AB Color photog. materials having improved antistatic characteristics and showing no pressure stains contain ≥1 nonphotosensitive layer containing a UV radiation-absorbing polymer latex and a fluorine-containing tenside. Thus, a multilayer color photog. material was prepared and coated with a protective underlayer containing gelatin 1.0 g, p-C8H17C6H4(OCH2CH2)3SO3Na 5.0, octyl 5-(N,N-diethylamino)-2-phenylsulfonyl-2,4-pentadienoate 150 mg, and 2-(methacryloyloxy)ethyl 2-cyano-3-phenylacrylate-Me acrylate copolymer latex 4.3 g/m2 and then with a protective overlayer containing gelatin 0.7 g, poly(Me methacrylate) 20, p-C8H17C6H4(OCH2CH2)3SO3Na 80, and C8F17SO2NH(CH2)3N+Me3I- 5 mg/m2. The resultant film showed no static marks and pressure fog.

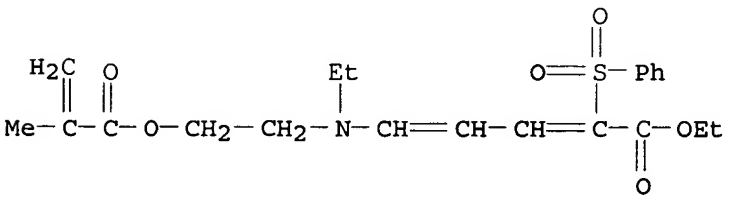
IT **89208-31-1P 91733-54-9P**
(UV-absorbing latexes of, preparation and photog. applications of)

RN 89208-31-1 HCAPLUS

CN 2,4-Pentadienoic acid, 5-[ethyl[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]amino]-2-(phenylsulfonyl)-, ethyl ester, polymer with methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

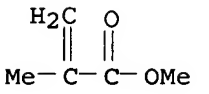
CM 1

CRN 89206-22-4
CMF C21 H27 N O6 S



CM 2

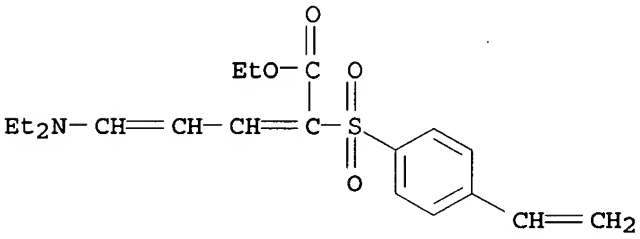
CRN 80-62-6
CMF C5 H8 O2



RN 91733-54-9 HCAPLUS
CN 2,4-Pentadienoic acid, 5-(diethylamino)-2-[(4-ethenylphenyl)sulfonyl]-, ethyl ester, polymer with methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

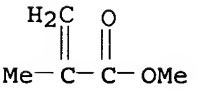
CM 1

CRN 89206-21-3
CMF C19 H25 N O4 S



CM 2

CRN 80-62-6
CMF C5 H8 O2



IT **89208-31-1P 91733-54-9P**
(UV-absorbing latexes of, preparation and photog. applications of)

L41 ANSWER 22 OF 25 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1984:129802 HCAPLUS
DOCUMENT NUMBER: 100:129802
TITLE: Photosensitive photographic silver halide material
INVENTOR(S): Kojima, Tetsuro; Ishimaru, Shingo; Sugimoto, Naohiko; Ikeda, Tadashi
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd. , Japan
SOURCE: Ger. Offen., 69 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent

LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 3313574	A1	19831020	DE 1983-3313574	19830414
JP 58178351	A2	19831019	JP 1982-61937	19820414
JP 01053455	B4	19891114		
GB 2118315	A1	19831026	GB 1983-8541	19830329
GB 2118315	B2	19851211		
US 4443534	A	19840417	US 1983-484331	19830412

PRIORITY APPLN. INFO.: JP 1982-61937 A 19820414

AB UV-absorbing (300-400 nm) polymeric latex which prevents UV degradation of Ag halide photog. emulsions and films consists of a homopolymer or a copolymer with a repeating unit of the formula CH2:CRZ(Z1)m(Z2)nR1 (I: R = H, C1-4 alkyl, or Cl; Z = CONH, CO2, or C6H4; Z1 = C1-20 alkylene or C6-20 arylene; Z2 = CO2, OCO, CONH, NHCO, SO2NH, NHSO2, SO2, or O; m = 0 or 1; n = 0 or 1; and R1 = UV absorbing group derived from a compound of the formula R2R3NCH:CHCH:CR4R5 where R2 and R3 = H, C1-20 alkyl, and C6-20 aryl or together form a ring; R4 = CN, CO2R6, CONHR6, COR6, or SO2R6; R5 = CN, CO2R7, CONHR7, COR7, or SO2R7; and R6 and R7 = C1-20 alkyl or C6-20 aryl or together form 1,3-dioxocyclohexane, barbituric acid, 1,2-diaza-3,5-dioxocyclopentane, or 2,4-diaza-1-alkoxy-3,5-dioxocyclohexane group). Thus, in the preparation of P-CH2:CHC6H4SO2C(CO2Et):CHCH:CHNEt2 (I), 3-anilinoacroleinanil and Et (4-vinylphenyl)sulfonylacetate were reacted in acetic anhydride, and the product after removal of the anhydride was reacted with EtOH and Et2NH. Then, I was copolymd. with Me methacrylate to form the polymeric latex which was dispersed in gelatin. A layer of this dispersion coated on a cellulose triacetate support showed high UV absorption and in a Ag halide colored film gave good color fastness and high image contrast.

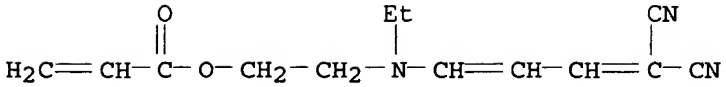
IT **89208-30-0P 89208-31-1P**
(preparation and UV-absorbing properties of latex of, photog. applications in relation to)

RN 89208-30-0 HCAPLUS

CN 2-Propenoic acid, butyl ester, polymer with 2-[(4,4-dicyano-1,3-butadienyl)ethylamino]ethyl 2-propenoate (9CI) (CA INDEX NAME)

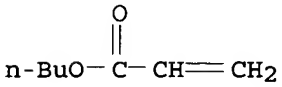
CM 1

CRN 89206-23-5
CMF C13 H15 N3 O2



CM 2

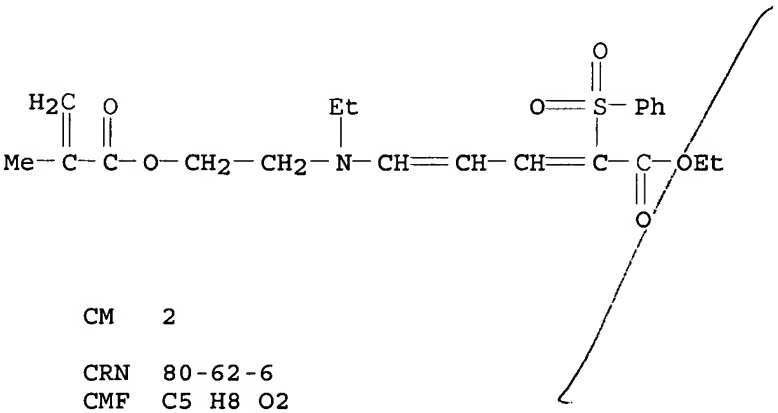
CRN 141-32-2
CMF C7 H12 O2



RN 89208-31-1 HCAPLUS
CN 2,4-Pentadienoic acid, 5-[ethyl[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl]amino]-2-(phenylsulfonyl)-, ethyl ester, polymer with methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

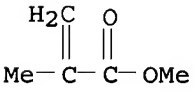
CM 1

CRN 89206-22-4
CMF C21 H27 N O6 S



CM 2

CRN 80-62-6
CMF C5 H8 O2



IT **89208-30-0P 89208-31-1P**
(preparation and UV-absorbing properties of latex of, photog. applications in relation to)

L41 ANSWER 23 OF 25 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1982:226419 HCAPLUS
DOCUMENT NUMBER: 96:226419
TITLE: Reversible photodimerization of some butadiene derivatives in solid state
AUTHOR(S): Swamy, H. Ramachandra; Ramamurthy, V.; Rao, C. N. R.

CORPORATE SOURCE: Dep. Org. Chem., Indian Inst. Sci., Bangalore, 560 012, India
SOURCE: Indian Journal of Chemistry, Section B: Organic Chemistry Including Medicinal Chemistry (1982), 21B(2), 79-82
CODEN: IJSBDB; ISSN: 0376-4699
DOCUMENT TYPE: Journal
LANGUAGE: English

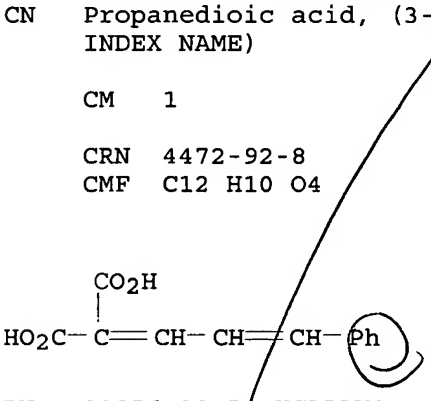
AB Photodimerization of a series of butadiene derivs. in the solid state was studied to explore the possible occurrence of reversible photochromism. The study underscored the importance of topochem. factors in solid state organic reactions.

IT **55631-77-1P 81956-18-5P**
(formation of, in photolysis of butadiene derivs. in solid state)

RN 55631-77-1 HCAPLUS
CN Propanedioic acid, (3-phenyl-2-propenylidene)-, dimer (9CI) (CA INDEX NAME)

CM 1

CRN 4472-92-8
CMF C12 H10 O4

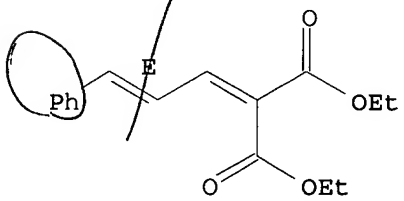


RN 81956-18-5 HCAPLUS
CN Propanedioic acid, (3-phenyl-2-propenylidene)-, diethyl ester, (E)-, dimer (9CI) (CA INDEX NAME)

CM 1

CRN 66684-75-1
CMF C16 H18 O4

Double bond geometry as shown.



IT **55631-77-1P 81956-18-5P**
(formation of, in photolysis of butadiene derivs. in solid state)

L41 ANSWER 24 OF 25 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1981:452735 HCAPLUS
DOCUMENT NUMBER: 95:52735
TITLE: Lithographic printing plate
INVENTOR(S): Shinozaki, Fumiaki; Ikeda, Tomoaki; Ikeda, Sadaharu; Osada, Chiaki

PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd. , Japan
SOURCE: U.S., 9 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4264713	A	19810428	US 1979-35969	19790504
JP 57018174	B4	19820415	JP 1974-131829	19741115

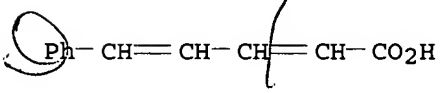
PRIORITY APPLN. INFO.:
JP 1974-131829 A 19741115
US 1975-632593 A1 19751117
US 1977-818030 A1 19770722

AB A light-sensitive printing plate is described which consists of a support and a layer of a light-sensitive composition containing a light-sensitive polymer containing -CH:CHCO- unit in its main chain and a light-sensitive polymer containing a -CH:CHCO- unit in its side chain(s). Thus, a light-sensitive coating solution containing poly(β-cinnamoyloxyethyl methacrylate) ([η] = 0.14) 1, a 1,4-bis(β-hydroxyethoxy)cyclohexane-p-phenylenediacrylic acid condensate (1:1) ([η] = 0.15) 1, 1,2-dichloroethane 12, Me cellosolve acetate 6 g, and nitroacenophthene 140 mg was coated at 2 μ (dry) on an Al support. From this light-sensitive lithog. printing plate, a lithog. plate could be produced which was excellent in printing durability.

IT **39465-22-0P**
(preparation of)
RN 39465-22-0 HCAPLUS
CN 2-Propenoic acid, 2-hydroxyethyl ester, homopolymer, 5-phenyl-2,4-pentadienoate (9CI) (CA INDEX NAME)

CM 1

CRN 1552-94-9
CMF C11 H10 O2



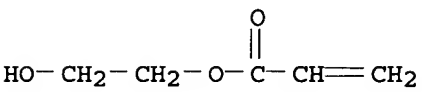
CM 2

CRN 26022-14-0

CMF (C5 H8 O3)x
CCI PMS

CM 3

CRN 818-61-1
CMF C5 H8 O3



IT **39465-22-0P**
(preparation of)

L41 ANSWER 25 OF 25 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1975:516346 HCAPLUS
DOCUMENT NUMBER: 83:116346
TITLE: Diene-modified polymers
INVENTOR(S): Gerber, Arthur H.
PATENT ASSIGNEE(S): Lord Corp., USA
SOURCE: Brit., 47 pp.
CODEN: BRXXAA
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

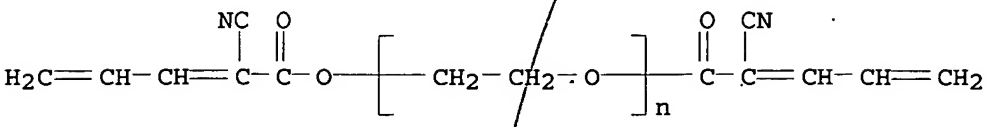
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 1374464	A	19741120	GB 1971-43925	1971 0921

PRIORITY APPLN. INFO.: GB 1971-43925 A 1971 0921

AB Modifications in the crosslinking properties, including converting noncrosslinkable to crosslinkable polymers, were achieved by incorporating 1,1-disubstituted butadiene groups to give polymers useful as adhesives, coatings, gellants, and water thickeners. Thus, 80 g cyanoacetate-capped poly(ethylene glycol), prepared by heating 213 g Me cyanoacetate and 770 g poly(ethylene glycol) .apprx.2 hr at 200-25° with 0.2 g of the dihydrate of Zn(OAc)2 [557-34-6], was treated 2.75 hr with 50 ml acrolein in the presence of 5 g ZnCl2 [7646-85-7] and 1 g Zn(OAc)2 to give 14.6 g acrolein-α,ω-cyanoacetate-poly(ethylene glycol) polymer (I) [40738-47-4] as an orange viscous oil which gave after, trituration with Et2O, a white solid, soluble in H2O, which was crosslinked into an insol. solid on heating. A 45% solids solution of I in n-amyl acetate and Me iso-Bu ketone, after 2 applications to concrete and drying 1 hr at 100° gave an adhesive uniform coating insol. in N-amyl acetamethyl iso-Bu ketone mixture

IT **40738-47-4P**
(**coating** material, gellant, and water-thickener, manufacture of)

RN 40738-47-4 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), α-(2-cyano-1-oxo-2,4-pentadienyl)-ω-[(2-cyano-1-oxo-2,4-pentadienyl)oxy]- (9CI) (CA INDEX NAME)



IT **40738-47-4P**
(**coating** material, gellant, and water-thickener, manufacture of)

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                 SEL RN

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L2             1 S E1

     FILE 'LREGISTRY' ENTERED AT 09:21:16 ON 27 JAN 2006
L3               STR

     FILE 'REGISTRY' ENTERED AT 09:22:00 ON 27 JAN 2006
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L5            50 S L3 AND L4

     FILE 'LREGISTRY' ENTERED AT 09:24:26 ON 27 JAN 2006
L6               STR

     FILE 'REGISTRY' ENTERED AT 09:33:02 ON 27 JAN 2006
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L8               STR L6
L9            50 S L8 AND L4
L10              STR L8
L11              STR L8
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L14              SCR 1929
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L16              SCR 2078
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L18           50 S L8 NOT (L12 OR L14 OR L16)
L19       485367 S L8 NOT (L12 OR L14 OR L16) FUL
L20            1 S L19 AND L2
L21       109707 S L19 AND PMS/CI
L22            1 S L21 AND L2
L23           49 S L10 SAM  SUB=L21
L24          923 S L10 FUL  SUB=L21
L25           50 S L11 NOT (L12 OR L14 OR L16)
L26            1 S L11 AND L4 NOT (L12 OR L14 OR L16)
L27         2866 S L11 NOT (L12 OR L14 OR L16) FUL
L28           11 S L27 AND PMS/CI
L29       108782 S L21 NOT (L24 OR L27)


     FILE 'HCAPLUS' ENTERED AT 10:54:41 ON 27 JAN 2006
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L31        83813 S L30(L)PREP/RL
L32          269 S L31(L)(ANTI(A)REFLECT? OR ANTIREFLECT?)
L33          131 S L32(L)COAT?
L34           66 S L33 AND PHOTOG?/SC
                 SEL L34 HIT RN 1-66
L35          650 S L24
L36          280 S L35(L)PREP/RL
L37            1 S L36(L)(ANTI(A)REFLECT? OR ANTIREFLECT?)
L38            1 S L36 AND (ANTI(A)REFLECT? OR ANTIREFLECT?)
L39            6 S L36(L)COAT?
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L40          20 S L36 AND PHOTOG?/SC
L41          25 S L37-L40
                SEL HIT RN 1-25
L42           8 S L28
L43        2819 S L27
L44        1619 S L43(L)PREP/RL
L45           0 S L44(L)(ANTI(A)REFLECT? OR ANTIREFLECT?)
L46           0 S L44 AND (ANTI(A)REFLECT? OR ANTIREFLECT?)
L47           4 S L44 AND COAT?
L48           9 S L44 AND PHOTOG?/SC
L49          20 S L42 OR L45-L48
                SEL HIT RN 1-20


=> d que l34
L8                STR

 C═C—G1       C═O        C≡N        N┅┅C        O═C—O—Ak
 1  2  3      @4  5      @6  7      @8  9       10 @11 12  13


 O┅┅C┅┅N       O═S═O       C═S
14 @15 @16     17 @18 19    @20 21

VAR G1=4/6/8/11/15/16/18/20/COOH
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DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS  21

STEREO ATTRIBUTES: NONE
L10               STR

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23  22  1  2  3    @4  5      @6  7      @8  9       14 @15 @16


 O═C—O—Ak      O═S═O       C═S
10 @11 12  13  17 @18 19   @20 21

VAR G1=4/6/8/11/15/16/18/20/COOH
NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS  23

STEREO ATTRIBUTES: NONE
L11               STR
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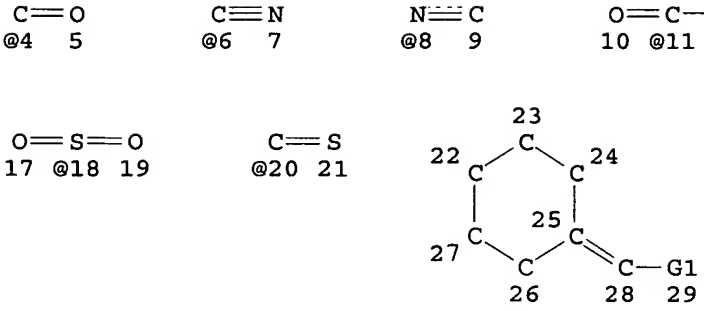

VAR G1=4/6/8/11/15/16/18/20/COOH
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DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 26

STEREO ATTRIBUTES: NONE

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L14              SCR 1929
L16              SCR 2078
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L21       109707 SEA FILE=REGISTRY ABB=ON  PLU=ON  L19 AND PMS/CI
L24          923 SEA FILE=REGISTRY SUB=L21 SSS FUL L10
L27         2866 SEA FILE=REGISTRY SSS FUL L11 NOT (L12 OR L14 OR L16)
L29       108782 SEA FILE=REGISTRY ABB=ON  PLU=ON  L21 NOT (L24 OR L27)

L30       363289 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L29
L31        83813 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L30(L)PREP/RL
L32          269 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L31(L)(ANTI(A)REFLECT?
                  OR ANTIREFLECT?)
L33          131 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L32(L)COAT?
L34           66 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L33 AND PHOTOG?/SC


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FILE 'HCAPLUS' ENTERED AT 12:03:34 ON 27 JAN 2006

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E215 THROUGH E317 ASSIGNED

=> d l34 1-66 ibib abs hitstr hitind

L34  ANSWER 1 OF 66  HCAPLUS  COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER:        2006:11655  HCAPLUS
DOCUMENT NUMBER:         144:97860
TITLE:                   Triacetyl cellulose films having hard coating
                         layers with good adhesion, and antireflective
                         films and polarizers using them
INVENTOR(S):             Matsuo, Yuichiro; Watakabe, Daisuke
PATENT ASSIGNEE(S):      Nippon Kayaku Co., Ltd., Japan
SOURCE:                  Jpn. Kokai Tokkyo Koho, 12 pp.
                         CODEN: JKXXAF
DOCUMENT TYPE:           Patent
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LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2006001218	A2	20060105	JP 2004-182048	20040621
PRIORITY APPLN. INFO.:			JP 2004-182048	20040621

AB The films, useful for liquid crystal displays (LCD), are characterized in that the coating layers are formed on saponified triacetyl cellulose films by curing composition containing (A) epoxy-containing siloxanes manufactured by condensing ReSi(OR1)3 (Re = substituent having epoxy group; R1 = C1-4 alkyl) and RaSi(OR2)3 (Ra = C1-10 alkyl, aryl; R2 = same as R1) in the presence of basic catalysts, (B) cationic photopolymn. initiators, and (C) diluents.

IT **88583-06-6P**, Kayarad DPHA homopolymer
(**antireflective** layer; saponified triacetyl cellulose films having epoxy silane hard **coatings** with good adhesion)

RN 88583-06-6 HCAPLUS

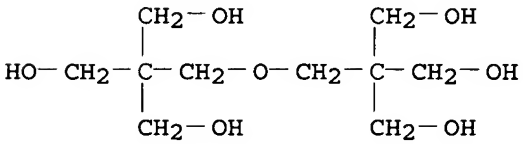
CN 2-Propenoic acid, ester with 2,2'-[oxybis(methylene)]bis[2-(hydroxymethyl)-1,3-propanediol], homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 77641-99-7
CMF C10 H22 O7 . x C3 H4 O2

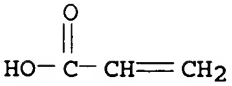
CM 2

CRN 126-58-9
CMF C10 H22 O7



CM 3

CRN 79-10-7
CMF C3 H4 O2



CC 74-13 (Radiation Chemistry, Photochemistry, and **Photographic** and Other Reprographic Processes)
Section cross-reference(s): 42
IT **88583-06-6P**, Kayarad DPHA homopolymer
(**antireflective** layer; saponified triacetyl cellulose films having epoxy silane hard **coatings** with good adhesion)

L34 ANSWER 2 OF 66 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:1330388 HCAPLUS
DOCUMENT NUMBER: 144:78042
TITLE: Polarizing plates, protective films therefor, their combinations, and coated cellulose ester films with good dimensional stability therefor
INVENTOR(S): Shibuya, Masahiro
PATENT ASSIGNEE(S): Konica Minolta Opto Inc., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 27 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

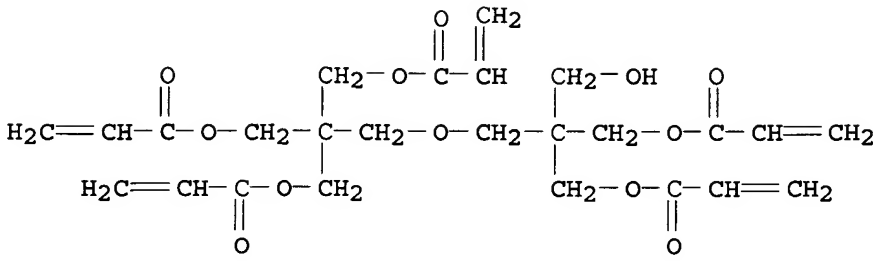
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005349580	A2	20051222	JP 2004-169480	2004 0608
PRIORITY APPLN. INFO.:			JP 2004-169480	2004 0608

AB The coated cellulose ester films (e.g., antireflective films) show dimensional change in the transverse direction 0-0.40% (preferably 0-0.20%) after 50-h thermal radiation at 80° and relative humidity 90%. Polarizer protective films from the above films are useful fro LCD. Also claimed are combinations of protective films, consisting of coated and uncoated cellulose ester films with A/B 60-100% (A, B = dimensional change in the former and the latter films, resp., under heating in the same conditions).
IT **82277-45-0P**, Dipentaerythritol hexaacrylate-dipentaerythritol pentaacrylate copolymer
(**antireflective** layers; **coated** cellulose ester films with good dimensional stability for LCD polarizer protective films)
RN 82277-45-0 HCAPLUS
CN 2-Propenoic acid, 2-[[3-hydroxy-2,2-bis[[(1-oxo-2-propenyl)oxy]methyl]propoxy]methyl]-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester, polymer with 2-[[3-[(1-oxo-2-propenyl)oxy]-2,2-bis[[(1-oxo-2-propenyl)oxy]methyl]propoxy]methyl]-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl di-2-propenoate (9CI) (CA INDEX NAME)

CM 1

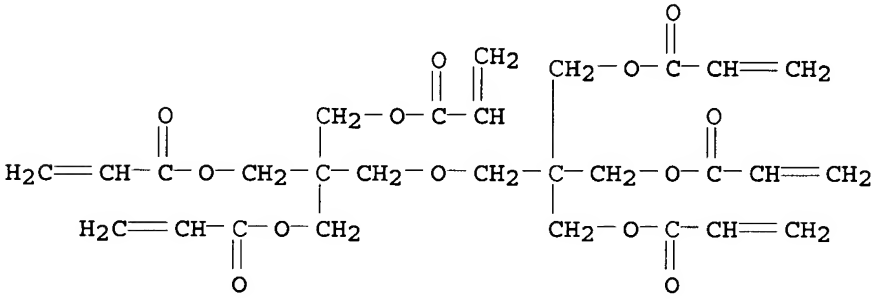
CRN 60506-81-2

CMF C25 H32 O12



CM 2

CRN 29570-58-9
CMF C28 H34 O13



IC ICM B32B023-04
ICS B05D003-02; B05D007-04; G02B005-30
CC 74-13 (Radiation Chemistry, Photochemistry, and **Photographic** and Other Reprographic Processes)
Section cross-reference(s): 38, 73
IT **82277-45-0P**, Dipentaerythritol hexaacrylate-dipentaerythritol pentaacrylate copolymer 325792-30-1P, DMAEA-dipentaerythritol hexaacrylate-dipentaerythritol pentaacrylate-PM 21 copolymer 332363-57-2P, DMAEA-PM 21 copolymer
(**antireflective** layers; **coated** cellulose ester films with good dimensional stability for LCD polarizer protective films)

L34 ANSWER 3 OF 66 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:1240348 HCAPLUS
DOCUMENT NUMBER: 143:485932
TITLE: Antireflective polarizer sheet strips, method for their manufacture, and display devices
INVENTOR(S): Kato, Eiichi; Nakayama, Hajime; Yoneyama, Hiroyuki
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 140 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005326713	A2	20051124	JP 2004-145981	2004 0517

PRIORITY APPLN. INFO.: JP 2004-145981 2004 0517

AB The antireflective polarizer sheet strips comprises a poly(vinyl alc.)-type film sandwiched in between a pair of cellulose acylate protective films one of which is equipped with an antireflective coating, which is satisfying (1) Re = (nx - ny) + d, (2) Rth = [(nx + ny)/2 - nz] + d, (3) Reλ80/Reλ10 ≥0.65, and (4) Rthλ80/Rthλ10 ≥0.65, where Re (nm) is the face-side retardation of the film, Rth (nm) is the retardation in the film thickness direction, nx, ny, and nz are refractive indexes for the in-film lagging axis direction, the in-film advancing axis direction, and the film thickness direction, resp., d is the film thickness, Reλ10 and Rthλ10 are Re and Rth at λ, 25°, and 10 RH (nm), and Reλ80 and Rthλ80 are Re and Rth at λ, 25°, and 80 RH (nm). The antireflective layer may be a multilayer film comprising ≥1 layer(s) having larger refractive index than the cellulose acylate film and ≥1 layer(s) having smaller refractive index than the cellulose acylate film and containing fine-grain inorg. hollow particles of n 1.17-1.37. Method for manufacture of the strips includes drawing of the base film under certain defined strain. Displays, especially liquid crystal displays, including the strips are also claimed. Polarizer sheet strips showing uniform image appearance independent of the displaying circumstances and having durability are obtained.

IT **88583-06-6P**, Kayarad DPHA homopolymer **206254-81-1P**, Glycidyl methacrylate-trimethylolpropane triacrylate copolymer (hard **coat** layer; manufacture of **antireflective** polarizer sheet strips with cellulose acylate protective layers for displays)

RN 88583-06-6 HCAPLUS

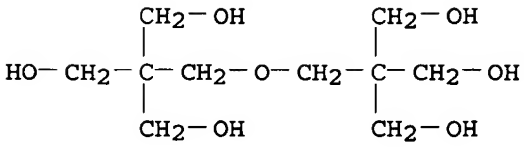
CN 2-Propenoic acid, ester with 2,2'-[oxybis(methylene)]bis[2-(hydroxymethyl)-1,3-propanediol], homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 77641-99-7
CMF C10 H22 O7 . x C3 H4 O2

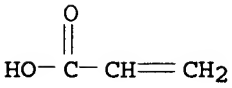
CM 2

CRN 126-58-9
CMF C10 H22 O7



CM 3

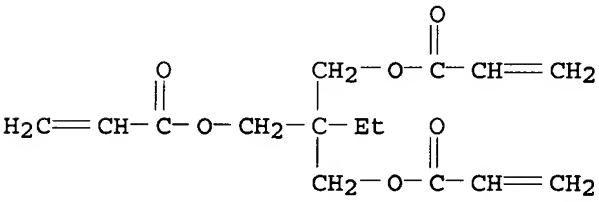
CRN 79-10-7
CMF C3 H4 O2



RN 206254-81-1 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, oxiranylmethyl ester, polymer with 2-ethyl-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl di-2-propenoate (9CI) (CA INDEX NAME)

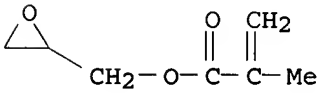
CM 1

CRN 15625-89-5
CMF C15 H20 O6



CM 2

CRN 106-91-2
CMF C7 H10 O3



IC ICM G02B005-30
ICS G02B001-11; G02F001-1335
CC 74-13 (Radiation Chemistry, Photochemistry, and **Photographic** and Other Reprographic Processes)
Section cross-reference(s): 73
IT **88583-06-6P**, Kayarad DPHA homopolymer **206254-81-1P**
, Glycidyl methacrylate-trimethylolpropane triacrylate copolymer
(hard **coat** layer; manufacture of **antireflective**

polarizer sheet strips with cellulose acylate protective layers for displays)

L34 ANSWER 4 OF 66 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:1149746 HCAPLUS
DOCUMENT NUMBER: 143:396519
TITLE: Antistatic layer, antistatic hard-coated film, antistatic antireflecting film, polarizer, and display
INVENTOR(S): Saito, Koichi; Takimoto, Masataka
PATENT ASSIGNEE(S): Konica Minolta Opto Inc., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 47 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005298716	A2	20051027	JP 2004-118712	2004 0414

PRIORITY APPLN. INFO.: JP 2004-118712 2004 0414

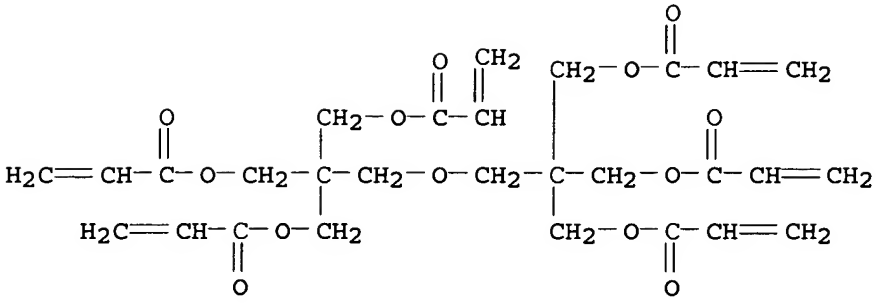
AB The antistatic layer contains conductive metal oxide particles and ionizing radiation-curable resins containing ≥2 (meth)acryloyl-containing polyfunctional (meth)acrylates and acrylamide derivs. Preferably, the oxide particles are coated with silane coupling agents, and the particles may be Sb-doped Sn oxide, In Sn oxide, Sb2O5, Zn oxide, and/or Zr oxide. Preferably, the antistatic layer or its adjacent layer contains Ti oxide. The hard-coated film and the antireflecting film have the above antistatic layer and are used in the polarizer. The display has the hard-coated film, the antireflecting film, or the polarizer. The layer gives an antistatic colorless haze-free high-strength film.

IT **124221-07-4P**, Acryloylmorpholine-dipentaerythritol hexaacrylate copolymer **866876-11-1P**, Dipentaerythritol hexaacrylate-(2-hydroxyethyl)acrylamide copolymer **866876-13-3P**, 3-(N,N-Dimethylaminopropyl)acrylamide-dipentaerythritol hexaacrylate copolymer **866876-15-5P**, Acryloylmorpholine-Kayarad DPHA copolymer
(antistatic layer containing conductive oxide particles and curable resins for hard-**coated** film, **antireflecting** film, polarizer, and display)

RN 124221-07-4 HCAPLUS
CN 2-Propenoic acid, 2-[[3-[(1-oxo-2-propenyl)oxy]-2,2-bis[[(1-oxo-2-propenyl)oxy]methyl]propoxy]methyl]-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester, polymer with 4-(1-oxo-2-propenyl)morpholine (9CI) (CA INDEX NAME)

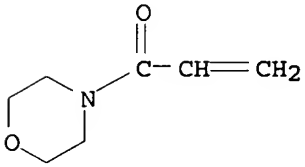
CM 1

CRN 29570-58-9
CMF C28 H34 O13



CM 2

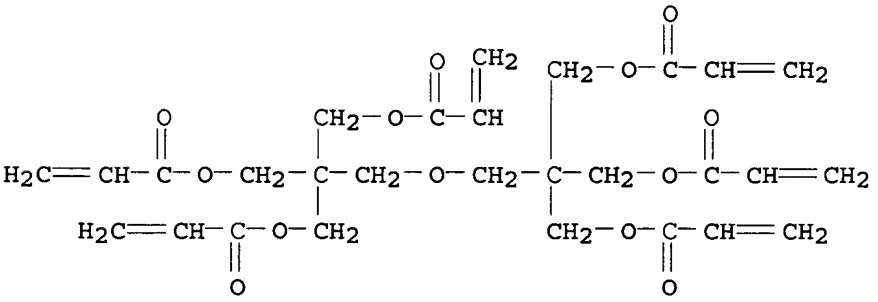
CRN 5117-12-4
CMF C7 H11 N O2



RN 866876-11-1 HCAPLUS
CN 2-Propenoic acid, 2-[[3-[(1-oxo-2-propenyl)oxy]-2,2-bis[[(1-oxo-2-propenyl)oxy]methyl]propoxy]methyl]-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester, polymer with N-(2-hydroxyethyl)-2-propenamide (9CI) (CA INDEX NAME)

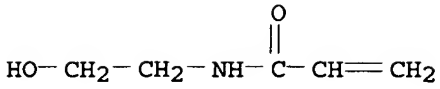
CM 1

CRN 29570-58-9
CMF C28 H34 O13



CM 2

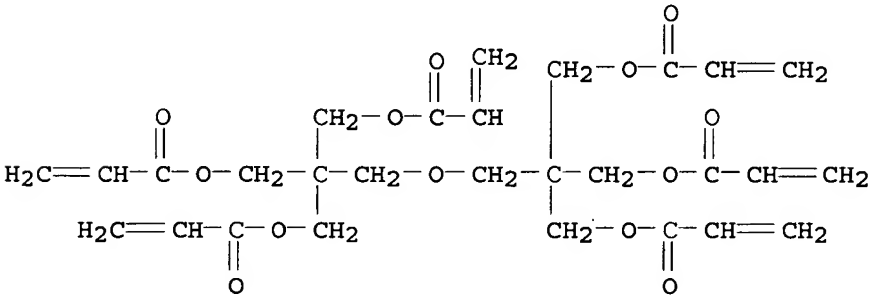
CRN 7646-67-5
CMF C5 H9 N O2



RN 866876-13-3 HCAPLUS
CN 2-Propenoic acid, 2-[[3-[(1-oxo-2-propenyl)oxy]-2,2-bis[[(1-oxo-2-propenyl)oxy]methyl]propoxy]methyl]-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester, polymer with N-[3-(dimethylamino)propyl]-2-propenamide (9CI) (CA INDEX NAME)

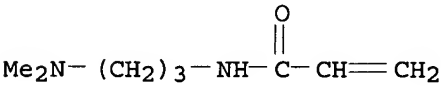
CM 1

CRN 29570-58-9
CMF C28 H34 O13



CM 2

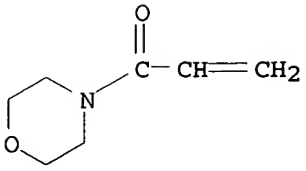
CRN 3845-76-9
CMF C8 H16 N2 O



RN 866876-15-5 HCAPLUS
CN 2-Propenoic acid, ester with 2,2'-[oxybis(methylene)]bis[2-(hydroxymethyl)-1,3-propanediol], polymer with 4-(1-oxo-2-propenyl)morpholine (9CI) (CA INDEX NAME)

CM 1

CRN 5117-12-4
CMF C7 H11 N O2

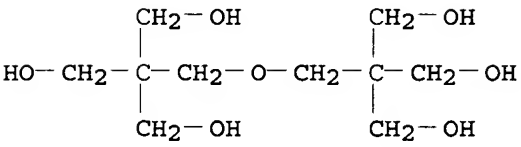


CM 2

CRN 77641-99-7
CMF C10 H22 O7 . x C3 H4 O2

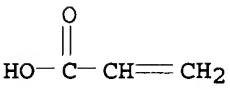
CM 3

CRN 126-58-9
CMF C10 H22 O7



CM 4

CRN 79-10-7
CMF C3 H4 O2



IC ICM C08J007-18
ICS B32B027-30; G02B001-11; G02B005-30; G02F001-1335; C08L101-00
CC 74-13 (Radiation Chemistry, Photochemistry, and **Photographic** and Other Reprographic Processes)
Section cross-reference(s): 38
IT **124221-07-4P**, Acryloylmorpholine-dipentaerythritol hexaacrylate copolymer **866876-11-1P**, Dipentaerythritol hexaacrylate-(2-hydroxyethyl)acrylamide copolymer **866876-13-3P**, 3-(N,N-Dimethylaminopropyl)acrylamide-dipentaerythritol hexaacrylate copolymer **866876-15-5P**, Acryloylmorpholine-Kayarad DPHA copolymer
(antistatic layer containing conductive oxide particles and curable resins for hard-**coated** film, **antireflecting** film, polarizer, and display)

L34 ANSWER 5 OF 66 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:1050636 HCAPLUS
DOCUMENT NUMBER: 143:356614
TITLE: Positive-working photoimageable bottom antireflective coating

INVENTOR(S): Sui, Yu; Wu, Hengpeng; Kang, Wenbing; Neisser, Mark O.; Katayama, Tomohide; Ding-Lee, Shuji S.; Hishida, Aritaka; Oberlander, Joseph E.; Toukhy, Medhat E.
PATENT ASSIGNEE(S): Japan
SOURCE: U.S. Pat. Appl. Publ., 13 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005214674	A1	20050929	US 2004-808884	2004 0325
WO 2005093513	A2	20051006	WO 2005-IB773	2005 0323

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2004-808884 A 2004 0325

AB The present invention relates to a pos. bottom photoimageable antireflective coating composition which is capable of being developed in an aqueous alkaline developer, wherein the antireflective coating composition comprises a polymer comprising at least one recurring unit with a chromophore group and one recurring unit with a hydroxyl and/or a carboxyl group, a vinyl ether terminated crosslinking agent, and optionally, a photoacid generator and/or an acid and/or a thermal acid generator. The invention further relates to a process for using such a composition

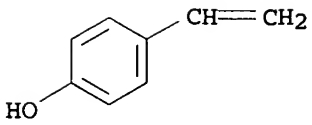
IT **219486-01-8P 865817-69-2P 865817-70-5P**
(Pos.-working photoimageable bottom **antireflective coating**)

RN 219486-01-8 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, polymer with 4-ethenylphenol and methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

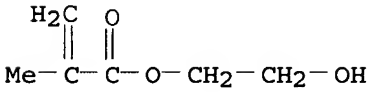
CM 1

CRN 2628-17-3
CMF C8 H8 O



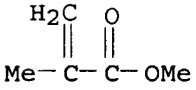
CM 2

CRN 868-77-9
CMF C6 H10 O3



CM 3

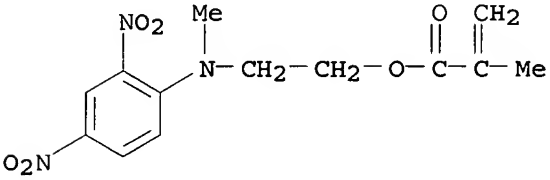
CRN 80-62-6
CMF C5 H8 O2



RN 865817-69-2 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 2-[(2,4-dinitrophenyl)methylamino]eth
yl ester, polymer with 4-ethenylphenol (9CI) (CA INDEX NAME)

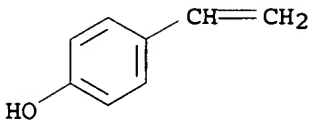
CM 1

CRN 865817-68-1
CMF C13 H15 N3 O6



CM 2

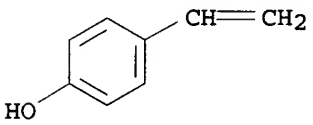
CRN 2628-17-3
CMF C8 H8 O



RN 865817-70-5 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, polymer with 1,1-dimethylethyl 2-methyl-2-propenoate and 4-ethenylphenol (9CI) (CA INDEX NAME)

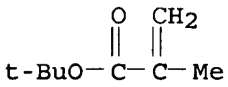
CM 1

CRN 2628-17-3
CMF C8 H8 O



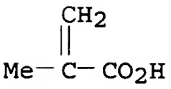
CM 2

CRN 585-07-9
CMF C8 H14 O2



CM 3

CRN 79-41-4
CMF C4 H6 O2



IC ICM G03F007-004
INCL 430270100; 430326000
CC 74-5 (Radiation Chemistry, Photochemistry, and **Photographic** and Other Reprographic Processes)
Section cross-reference(s): 76
IT **219486-01-8P** 865817-66-9P 865817-67-0P **865817-69-2P 865817-70-5P**
(Pos.-working photoimageable bottom **antireflective coating**)

L34 ANSWER 6 OF 66 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:810910 HCAPLUS
DOCUMENT NUMBER: 143:219556

TITLE: Antireflective films, durable antisoiling layers therefor, preparation thereof, polarizing plates equipped therewith, and displays therewith
INVENTOR(S): Murakami, Takashi; Kudo, Kazuyoshi; Ito, Hiroto; Matsuda, Atsuko
PATENT ASSIGNEE(S): Konica Minolta Opto Inc., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 41 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005219223	A2	20050818	JP 2004-26559	2004 0203

PRIORITY APPLN. INFO.: JP 2004-26559 2004 0203

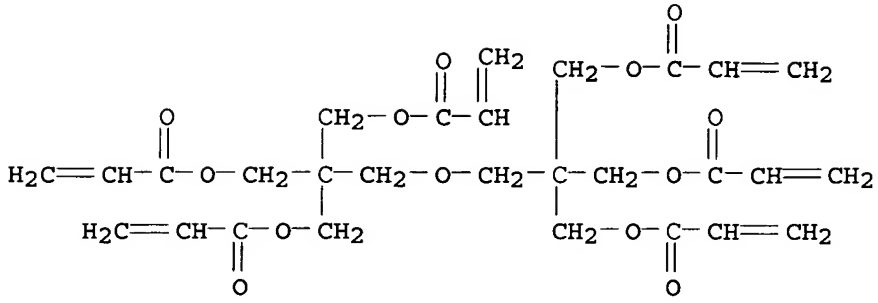
AB The antisoiling layers, disposed on substrates directly or via other layers, show Si/O/C ratio 1.0:(1.0-1.5):(1.1-20), water contact angle ≥90°, nanoindentation modulus on the surfaces 7-35 GPa, and surface I43.00/I44.98 ratio (corresponding to SiMe and SiOH, resp.) ≥4.5 in static secondary ion mass spectrometry. The layers are prepared by CVD in the presence of organic Si compds. and reductive gases. The layers may be prepared by atmospheric plasma CVD, wherein discharge gases containing N or Ar, the reductive gases, and alkyl-containing organic Si compds. are supplied between electrodes at 0.1 ≤ Y < 20 [Y (mg/min-cm2) = amount of the Si compds.] and discharged at 0.5 ≤ X < 5.0 [X (W/cm2) = d. of high-frequency voltage applied between the electrodes]. Also claimed are antireflective films having, on transparent substrates, (particle-containing) hard coating layers with thickness 1-20 μm and nanoindentation modulus ≥7 GPa, metal oxide layers thereon, and the above antisoiling layers on the surfaces. Polarizing plates having the films at least on one side are useful for displays (e.g., LCD, plasma displays, CRT).

IT **67653-78-5P**, Dipentaerythritol hexaacrylate homopolymer
847200-69-5P, Dipentaerythritol hexaacrylate-dipentaerythritol pentaacrylate-UV 6300B copolymer
(hard **coating** layers; preparation of durable antisoiling layers by CVD for **antireflective** films for display polarizing plates)

RN 67653-78-5 HCAPLUS
CN 2-Propenoic acid, 2-[[3-[(1-oxo-2-propenyl)oxy]-2,2-bis[[(1-oxo-2-propenyl)oxy]methyl]propoxy]methyl]-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 29570-58-9
CMF C28 H34 O13



RN 847200-69-5 HCAPLUS
CN 2-Propenoic acid, 2-[[3-hydroxy-2,2-bis[[(1-oxo-2-propenyl)oxy]methyl]propoxy]methyl]-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester, polymer with 2-[[3-[(1-oxo-2-propenyl)oxy]-2,2-bis[[(1-oxo-2-propenyl)oxy]methyl]propoxy]methyl]-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl di-2-propenoate and UV 6300B (9CI) (CA INDEX NAME)

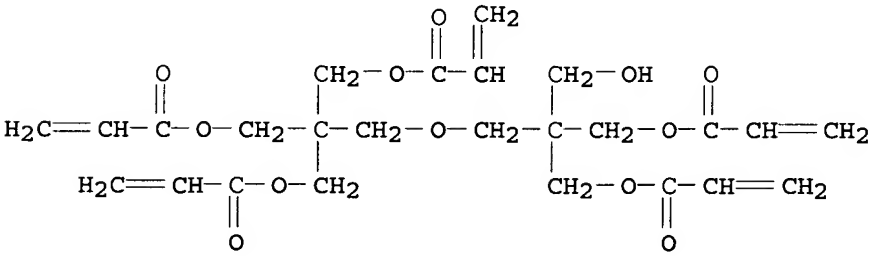
CM 1

CRN 221353-35-1
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

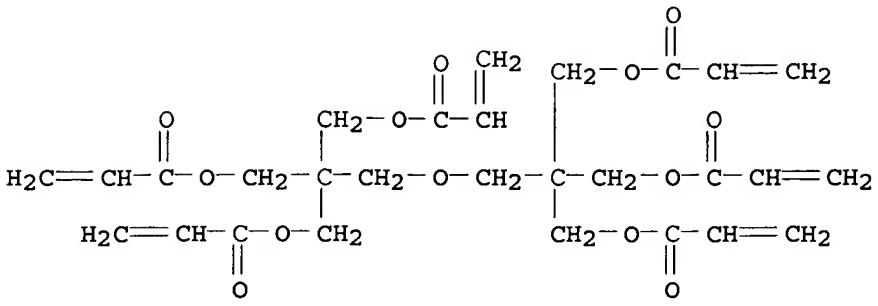
CM 2

CRN 60506-81-2
CMF C25 H32 O12



CM 3

CRN 29570-58-9
CMF C28 H34 O13



IC ICM B32B007-02
ICS B05D005-00; B05D005-06; G02B001-10; G02B001-11; G02B005-30; C23C016-52
CC 74-13 (Radiation Chemistry, Photochemistry, and **Photographic** and Other Reprographic Processes)
Section cross-reference(s): 38, 73
IT **67653-78-5P**, Dipentaerythritol hexaacrylate homopolymer
847200-69-5P, Dipentaerythritol hexaacrylate-dipentaerythritol pentaacrylate-UV 6300B copolymer 862288-77-5P
(hard **coating** layers; preparation of durable antisoiling layers by CVD for **antireflective** films for display polarizing plates)

L34 ANSWER 7 OF 66 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:591518 HCAPLUS
DOCUMENT NUMBER: 143:106487
TITLE: Antireflective films with good scratch resistance, polarizers laminated therewith, and displays therewith
INVENTOR(S): Ikeda, Akira
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 56 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005181519	A2	20050707	JP 2003-419467	2003 1217

PRIORITY APPLN. INFO.: JP 2003-419467 2003 1217

AB The films have, on transparent supports, hard-coat layers containing 3-30% (to binder resins) 0.5-5.0-μm-diameter matting particles having Δn (to the binder resins) 0.02-0.20 and low-n layers with n 1.30-1.49, where all the layers excluding the supports have inorg. fillers (with average diameter 0.001-0.2 μm). The hard-coat layers may have n 1.50-2.00 and contain oxides of Zr, Ti, Al, In, Zn, Sn, Sb, and/or Si as the fillers. The films may satisfy logarithmic resistivity (25°, 60%RH) ≤11.0 and

surface roughness (JIS-B 0601) Ra 0.12-0.30 and Rz 1.0-2.9. Displays having polarizers which employ the films as one or both of surface protective films, in the air-bearing outermost surface, are further claimed.

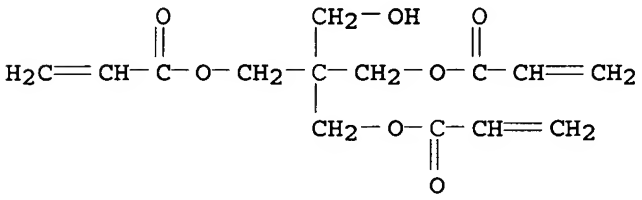
IT **27775-58-2P**
(Kayarad PET 30 homopolymer, hard-**coat** layers; scratch-resistant **antireflective** films containing matting agents and inorg. fillers for polarizers)

RN 27775-58-2 HCAPLUS

CN 2-Propenoic acid, 2-(hydroxymethyl)-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 3524-68-3
CMF C14 H18 O7



IT **852988-81-9P 857042-68-3P**
(hard-**coat** layers; scratch-resistant **antireflective** films containing matting agents and inorg. fillers for polarizers)

RN 852988-81-9 HCAPLUS

CN 2-Propenoic acid, ester with 2,2'-[oxybis(methylene)]bis[2-(hydroxymethyl)-1,3-propanediol], polymer with DeSolite Z 7404 (9CI) (CA INDEX NAME)

CM 1

CRN 701913-07-7
CMF Unspecified
CCI MAN

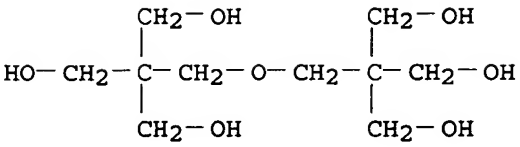
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 77641-99-7
CMF C10 H22 O7 . x C3 H4 O2

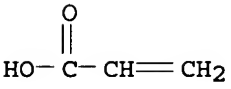
CM 3

CRN 126-58-9
CMF C10 H22 O7



CM 4

CRN 79-10-7
CMF C3 H4 O2



RN 857042-68-3 HCAPLUS
CN 2-Propenoic acid, 2,2-bis[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester, polymer with DeSolite Z 7404 and 2-(hydroxymethyl)-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl di-2-propenoate (9CI) (CA INDEX NAME)

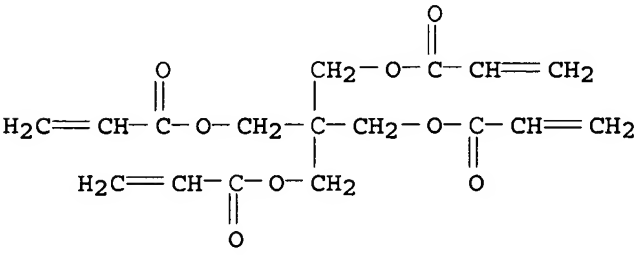
CM 1

CRN 701913-07-7
CMF Unspecified
CCI MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

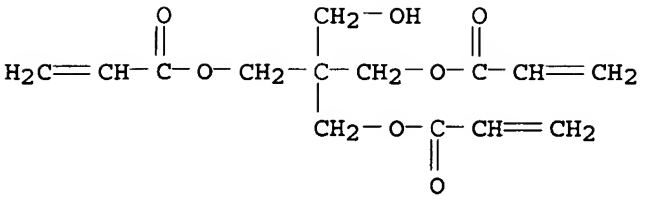
CM 2

CRN 4986-89-4
CMF C17 H20 O8



CM 3

CRN 3524-68-3
CMF C14 H18 O7



IC ICM G02B001-11
ICS B32B027-00; G02B005-02; G02B005-30; G02F001-1335
CC 74-13 (Radiation Chemistry, Photochemistry, and **Photographic** and Other Reprographic Processes)
Section cross-reference(s): 38, 73
IT **27775-58-2P**
(Kayarad PET 30 homopolymer, hard-**coat** layers; scratch-resistant **antireflective** films containing matting agents and inorg. fillers for polarizers)
IT **852988-81-9P 857042-68-3P**
(hard-**coat** layers; scratch-resistant **antireflective** films containing matting agents and inorg. fillers for polarizers)

L34 ANSWER 8 OF 66 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:586955 HCAPLUS
DOCUMENT NUMBER: 143:86944
TITLE: Plastic films suppressing interference fringe, their functional films, and optical imaging devices
INVENTOR(S): Fukuda, Kenichi
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 62 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005178173	A2	20050707	JP 2003-422107	2003 1219

PRIORITY APPLN. INFO.: JP 2003-422107 2003 1219

AB The plastic films, showing haze ≤5.0%, have layers mainly comprising TiO2, and containing inorg. fine particles containing Co, Al, and/or Zr directly adjacent to transparent supports. The functional films have ≥2-μm thick functional layers, preferably hard coating or antireflective layers, satisfying 0.03 ≤|nS-nH| laminated on the inorg. particle-containing layers directly or via other layers (nS, nH = refractive index of the transparent supports and the functional layers, resp.). The films also show good weather resistance and high mech. strength.
IT **82277-45-0P**, Dipentaerythritol pentaacrylate-dipentaerythritol hexaacrylate copolymer

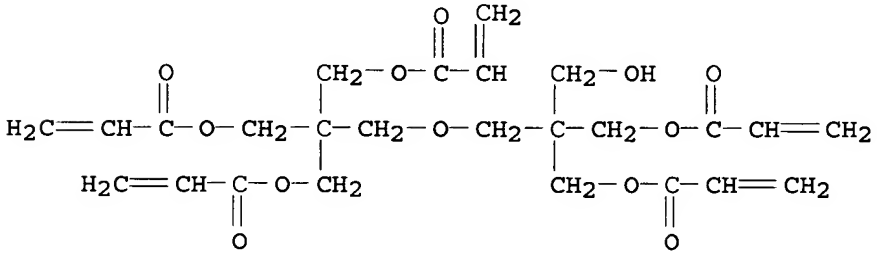
(**antireflective** layers; plastic films suppressing interference fringe, and showing good weather resistance and high mech. strength for hard **coating** or **antireflective** films for optical imaging devices)

RN 82277-45-0 HCAPLUS

CN 2-Propenoic acid, 2-[[3-hydroxy-2,2-bis[[(1-oxo-2-propenyl)oxy]methyl]propoxy]methyl]-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester, polymer with 2-[[3-[(1-oxo-2-propenyl)oxy]-2,2-bis[[(1-oxo-2-propenyl)oxy]methyl]propoxy]methyl]-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl di-2-propenoate (9CI) (CA INDEX NAME)

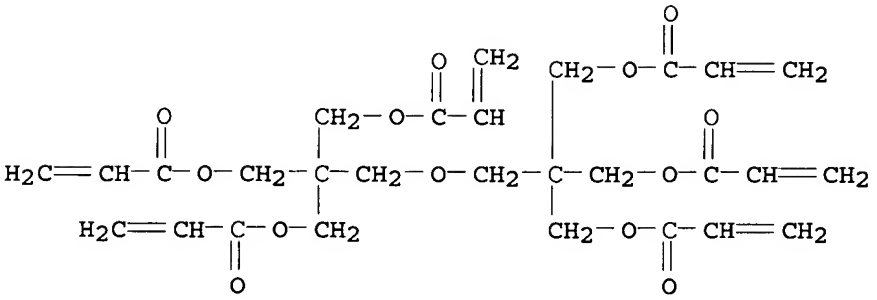
CM 1

CRN 60506-81-2
CMF C25 H32 O12



CM 2

CRN 29570-58-9
CMF C28 H34 O13



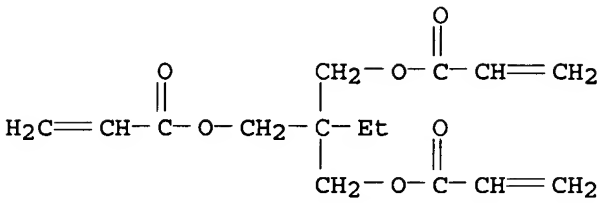
IT **206254-81-1P**, Glycidyl methacrylate-Viscoat 295 copolymer (hard **coating** layers; plastic films suppressing interference fringe, and showing good weather resistance and high mech. strength for hard **coating** or **antireflective** films for optical imaging devices)

RN 206254-81-1 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, oxiranylmethyl ester, polymer with 2-ethyl-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl di-2-propenoate (9CI) (CA INDEX NAME)

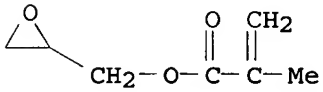
CM 1

CRN 15625-89-5
CMF C15 H20 O6



CM 2

CRN 106-91-2
CMF C7 H10 O3



IC ICM B32B009-00
ICS G02B001-11
CC 74-13 (Radiation Chemistry, Photochemistry, and **Photographic** and Other Reprographic Processes)
Section cross-reference(s): 38, 73
IT **82277-45-0P**, Dipentaerythritol pentaacrylate-dipentaerythritol hexaacrylate copolymer
(**antireflective** layers; plastic films suppressing interference fringe, and showing good weather resistance and high mech. strength for hard **coating** or **antireflective** films for optical imaging devices)
IT **206254-81-1P**, Glycidyl methacrylate-Viscoat 295 copolymer
(hard **coating** layers; plastic films suppressing interference fringe, and showing good weather resistance and high mech. strength for hard **coating** or **antireflective** films for optical imaging devices)

L34 ANSWER 9 OF 66 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:572432 HCAPLUS
DOCUMENT NUMBER: 143:106370
TITLE: Cross-linking polymer for organic anti-reflective coating, organic anti-reflective coating composition comprising the same and method for forming photoresist pattern using the same
INVENTOR(S): Jung, Jae- Chang; Bok, Cheol-Kyu; Moon, Seung-Chan; Shin, Ki-Soo
PATENT ASSIGNEE(S): Hynix Semiconductor Inc., S. Korea
SOURCE: U.S. Pat. Appl. Publ., 9 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005142481	A1	20050630	US 2004-989221	2004 1115
JP 2005187801	A2	20050714	JP 2004-330847	2004 1115
PRIORITY APPLN. INFO.:			KR 2003-96922 A	2003 1224

AB A crosslinking polymer for an organic anti-reflective coating that is able to improve the uniformity of an ultra-fine photoresist pattern formed using a photolithog. process and an ArF light source with 194 nm wavelength. Organic anti-reflective coatings including the same and a method for forming a photoresist pattern using the same are also disclosed. The disclosed crosslinking polymer is capable of preventing scattered reflection from a bottom film layer, eliminating standing wave effect due to alteration of thickness of the photoresist film, and increasing uniformity of the thickness of photoresist pattern. At the same time, the disclosed crosslinking pattern increases the etching velocity of the organic anti-reflective coating so that it can be easily removed.

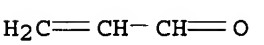
IT **25068-14-8P**, Acrolein homopolymer
(Crosslinking polymer organic **anti-reflective coating** for photolithog.)

RN 25068-14-8 HCAPLUS

CN 2-Propenal, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 107-02-8
CMF C3 H4 O



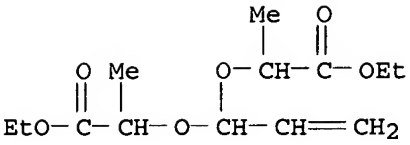
IT **856429-02-2P**
(Crosslinking polymer organic **anti-reflective coating** for photolithog.)

RN 856429-02-2 HCAPLUS

CN Propanoic acid, 2,2'-[2-propenylidenebis(oxy)]-, diethyl ester, polymer with 2-propenal (9CI) (CA INDEX NAME)

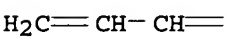
CM 1

CRN 856429-01-1
CMF C13 H22 O6



CM 2

CRN 107-02-8
CMF C3 H4 O



IC ICM G03C001-76
INCL 430270100
CC 74-5 (Radiation Chemistry, Photochemistry, and **Photographic** and Other Reprographic Processes)
Section cross-reference(s): 76
IT **25068-14-8P**, Acrolein homopolymer
(Crosslinking polymer organic **anti-reflective coating** for photolithog.)
IT **856429-02-2P**
(Crosslinking polymer organic **anti-reflective coating** for photolithog.)

L34 ANSWER 10 OF 66 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:546122 HCAPLUS
DOCUMENT NUMBER: 143:68497
TITLE: Antireflective films showing high strength for polarizing plates for display devices
INVENTOR(S): Kurematsu, Masayuki; Takimoto, Masataka; Oka, Shigeki
PATENT ASSIGNEE(S): Konica Minolta Opto Inc., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 58 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005165010	A2	20050623	JP 2003-404419	2003 1203

PRIORITY APPLN. INFO.: JP 2003-404419 2003 1203

AB The films have (A) transparent supports, (B) radiation-curable resin hard coating layers on the substrates, and (C) layers showing refractive index 1.21-1.41 and containing porous or hollow silica-based fine particles having outer shell layers applied on the hard coating layers directly or via other layers, where

surfaces of the C are treated with atmospheric-pressure plasma. Polarizing plates having the films show high flatness, and good scratch resistance and durability, resulting in display devies, e.g., liquid crystal displays, showing good visibility.

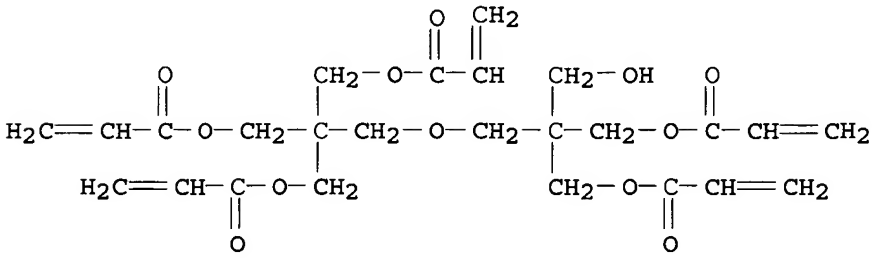
IT **82277-45-0P**, Dipentaerythritol hexaacrylate-dipentaerythritol pentaacrylate copolymer
(binders for hard **coating** layers; **antireflective** films having atmospheric-pressure plasma-treated low-refractive-index layers containing porous or hollow silica-based finer particles for polarizing plates for display devices)

RN 82277-45-0 HCAPLUS

CN 2-Propenoic acid, 2-[[3-hydroxy-2,2-bis[[(1-oxo-2-propenyl)oxy]methyl]propoxy]methyl]-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester, polymer with 2-[[3-[(1-oxo-2-propenyl)oxy]-2,2-bis[[(1-oxo-2-propenyl)oxy]methyl]propoxy]methyl]-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl di-2-propenoate (9CI) (CA INDEX NAME)

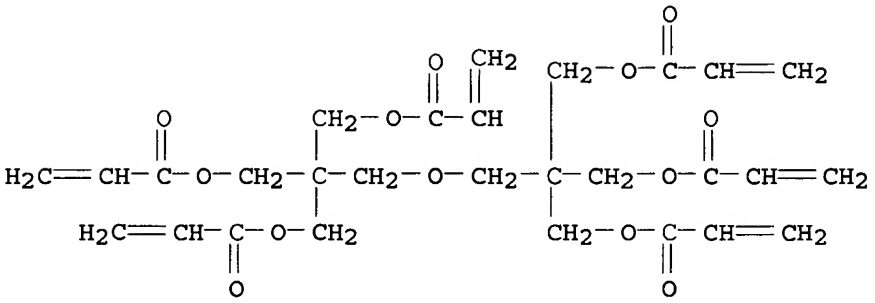
CM 1

CRN 60506-81-2
CMF C25 H32 O12



CM 2

CRN 29570-58-9
CMF C28 H34 O13



IC ICM G02B001-11
ICS B32B007-02; B32B027-16; G02B001-10; G02B005-30; G02F001-1335

CC 74-13 (Radiation Chemistry, Photochemistry, and

Photographic and Other Reprographic Processes)
Section cross-reference(s): 38, 73

IT **82277-45-0P**, Dipentaerythritol hexaacrylate-dipentaerythritol pentaacrylate copolymer
(binders for hard **coating** layers; **antireflective** films having atmospheric-pressure plasma-treated low-refractive-index layers containing porous or hollow silica-based finer particles for polarizing plates for display devices)

L34 ANSWER 11 OF 66 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:546073 HCAPLUS
DOCUMENT NUMBER: 143:68485
TITLE: Polarizing plates, high-strength antireflective films therefor, and displays therewith
INVENTOR(S): Kurematsu, Masayuki; Shibue, Toshiaki
PATENT ASSIGNEE(S): Konica Minolta Opto Inc., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 46 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005164809	A2	20050623	JP 2003-401353	2003 1201

PRIORITY APPLN. INFO.: JP 2003-401353 2003 1201

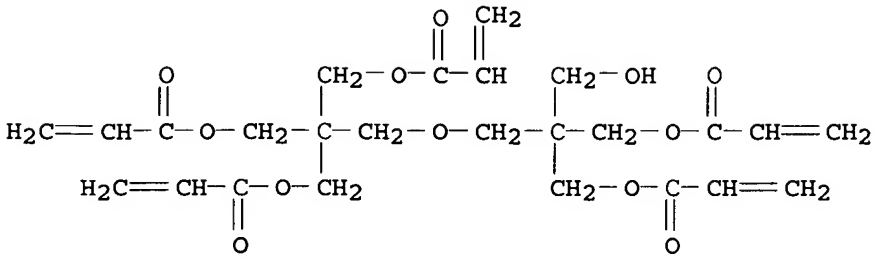
AB The antireflective films have (A) transparent substrates comprising poly(lactic acid)-based resins, (B) hard coating layers [with refractive index (n) 1.57-2.00] comprising actinic ray-curable resins (and metal oxide particles) thereon, and (C) low-n layers (with n 1.2-1.41), containing shell-equipped porous or hollow silica particles (and alkoxysilanes) or fluoropolymers, coated on B directly or via other layers. The substrates A may contain UV absorbers, plasticizers, or particles. Polarizing plates having the films on one side are useful for displays (e.g., LCD).

IT **82277-45-0P**, Dipentaerythritol hexaacrylate-dipentaerythritol pentaacrylate copolymer
(hard **coating** layers; high-strength **antireflective** films for display polarizing plates)

RN 82277-45-0 HCAPLUS
CN 2-Propenoic acid, 2-[[3-hydroxy-2,2-bis[[(1-oxo-2-propenyl)oxy]methyl]propoxy]methyl]-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester, polymer with 2-[[3-[(1-oxo-2-propenyl)oxy]-2,2-bis[[(1-oxo-2-propenyl)oxy]methyl]propoxy]methyl]-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl di-2-propenoate (9CI) (CA INDEX NAME)

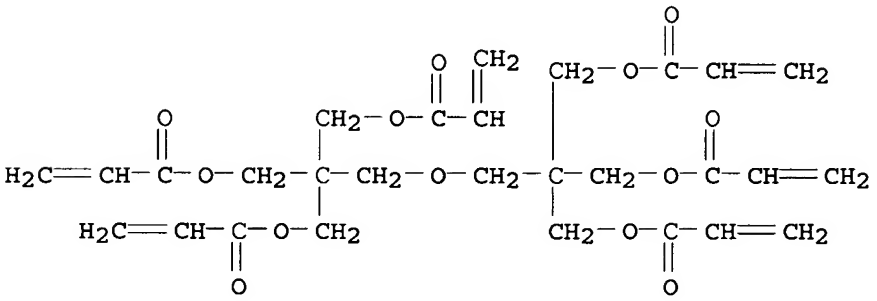
CM 1

CRN 60506-81-2
CMF C25 H32 O12



CM 2

CRN 29570-58-9
CMF C28 H34 O13



IC ICM G02B001-11
ICS B32B009-00; B32B027-36; G02B001-10; G02B005-30; G09F009-00
CC 74-13 (Radiation Chemistry, Photochemistry, and **Photographic** and Other Reprographic Processes)
Section cross-reference(s): 38, 73
IT **82277-45-0P**, Dipentaerythritol hexaacrylate-dipentaerythritol pentaacrylate copolymer
(hard **coating** layers; high-strength **antireflective** films for display polarizing plates)

L34 ANSWER 12 OF 66 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:496983 HCAPLUS
DOCUMENT NUMBER: 143:35231
TITLE: Light-resistant antireflective films, manufacture thereof, antireflective layers therefor, polarizing plates therewith, and displays equipped with them
INVENTOR(S): Ikeda, Toshiyuki; Maejima, Katsumi
PATENT ASSIGNEE(S): Konica Minolta Opto Inc., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 56 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005148272	A2	20050609	JP 2003-383493	2003 1113
PRIORITY APPLN. INFO.:			JP 2003-383493	2003 1113

AB The antireflective layers, showing good adhesiveness and high resistance to scratch, thermal crack, or solvents, comprise plural layers including (A) organic component-free layers with refractive index (n) 1.55-1.75, prepared by coating of (a) metal oxide (core-shell) particles with average diameter 1-200 nm, (b) metal compds. capable of self condensation polymerization, and (c) solvents, and optionally (B) low-n layers containing porous silica particles. Antireflective films are prepared by forming the above layers on actinic ray-curable resin layers formed on transparent supports (e.g., cellulose ester films). The cellulose ester films may contain UV absorbers and plural plasticizers consisting of polyol esters and compds. other than phosphate esters. Polarizing plates having the above antireflective films and optical compensator films, on one and the other side, resp., are useful for displays (LCD, plasma displays).

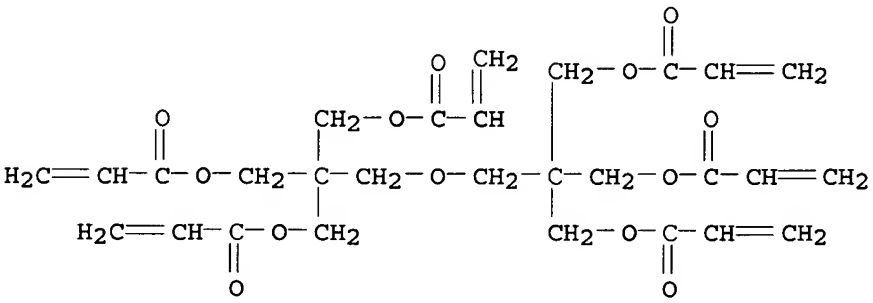
IT **67653-78-5P**, Dipentaerythritol hexaacrylate homopolymer (underlayers; manufacture of light- and scratch-resistant **antireflective** films containing organic component-free **coating** layers for display polarizing plates)

RN 67653-78-5 HCAPLUS

CN 2-Propenoic acid, 2-[[3-[(1-oxo-2-propenyl)oxy]-2,2-bis[[(1-oxo-2-propenyl)oxy]methyl]propoxy]methyl]-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 29570-58-9
CMF C28 H34 O13



IC ICM G02B001-11
ICS B32B007-02; B32B009-00; C08J007-04; G02B005-30; C08L001-10

CC 74-13 (Radiation Chemistry, Photochemistry, and **Photographic** and Other Reprographic Processes)
Section cross-reference(s): 38, 73

IT **67653-78-5P**, Dipentaerythritol hexaacrylate homopolymer
(underlayers; manufacture of light- and scratch-resistant **antireflective** films containing organic component-free **coating** layers for display polarizing plates)

L34 ANSWER 13 OF 66 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:496979 HCAPLUS
DOCUMENT NUMBER: 143:35229
TITLE: Antireflective film, its manufacture, polarizer, and display device
INVENTOR(S): Omatsu, Tadashi
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 63 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005148113	A2	20050609	JP 2003-380970	2003 1111

PRIORITY APPLN. INFO.: JP 2003-380970 2003 1111

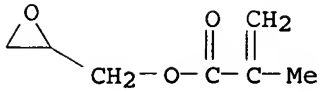
AB The antireflective film, comprising plural layers having different refractivity formed by coating a solution containing a film-forming material and a solvent, drying, and curing, is characterized by that (1) average specular reflectivity is ≤0.5% at 450-650 nm with angle of incidence 5° and (2) reflection change is ≤0.4% after weatherability test under exposure to 300-400 nm light with 150 W/m2 energy, 50% RH humidity after 200 h. In manufacture of the antireflective film having a high refractive layer containing high refractive inorg. fine particles and a low refractive layer, the inorg. particle dispersion manufactured by wet media dispersion method and maintaining the primary particle size after dispersion is used. The polarizer uses the antireflective film as a protective film on one side. The display device has the antireflective film and/or the polarizer. The film shows good anti-reflectivity, durability, and weatherability.

IT **183428-57-1P**, Glycidyl methacrylate-trimethylolpropane copolymer
(hard **coat** layer; **antireflective** film comprising high refractive layer containing inorg. particles and low refractive layer)

RN 183428-57-1 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, oxiranylmethyl ester, polymer with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (9CI) (CA INDEX NAME)

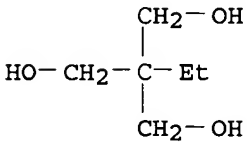
CM 1

CRN 106-91-2
CMF C7 H10 O3



CM 2

CRN 77-99-6
CMF C6 H14 O3



IC ICM G02B001-11
ICS B32B007-02; G02B005-30; G02F001-1335; G02F001-1336
CC 74-13 (Radiation Chemistry, Photochemistry, and **Photographic** and Other Reprographic Processes)
Section cross-reference(s): 73
IT **183428-57-1P**, Glycidyl methacrylate-trimethylolpropane copolymer
(hard **coat** layer; **antireflective** film comprising high refractive layer containing inorg. particles and low refractive layer)

L34 ANSWER 14 OF 66 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:450794 HCAPLUS
DOCUMENT NUMBER: 142:490400
TITLE: Bottom antireflective coatings
INVENTOR(S): Yao, Huirong; Ding-Lee, Shuji; Wu, Hengpeng; Xiang, Zhong
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 19 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005112494	A1	20050526	US 2003-721883	2003 1126
WO 2005052016	A2	20050609	WO 2004-IB4412	2004 1113

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR,

TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2003-721883 A 2003 1126

OTHER SOURCE(S): MARPAT 142:490400

AB The present invention relates to bottom antireflective coating compns. and polymers useful in making such compns.

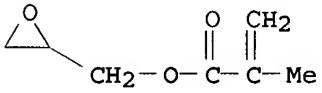
IT **25167-42-4DP**, Glycidyl methacrylate-styrene copolymer, Succinimide adduct **86249-19-6DP**, Benzyl methacrylate-Glycidyl methacrylate copolymer, Succinimide adduct **851883-55-1P**
(bottom **antireflective coatings** containing)

RN 25167-42-4 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, oxiranylmethyl ester, polymer with ethenylbenzene (9CI) (CA INDEX NAME)

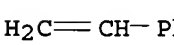
CM 1

CRN 106-91-2
CMF C7 H10 O3



CM 2

CRN 100-42-5
CMF C8 H8

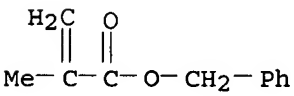


RN 86249-19-6 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, oxiranylmethyl ester, polymer with phenylmethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

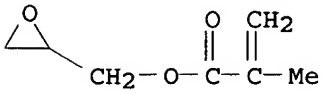
CM 1

CRN 2495-37-6
CMF C11 H12 O2



CM 2

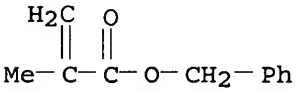
CRN 106-91-2
CMF C7 H10 O3



RN 851883-55-1 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, polymer with N-acetyl-2-propenamide and phenylmethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

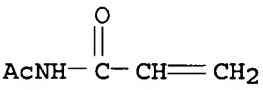
CM 1

CRN 2495-37-6
CMF C11 H12 O2



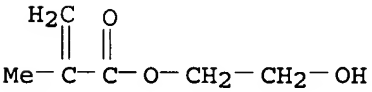
CM 2

CRN 1432-45-7
CMF C5 H7 N O2



CM 3

CRN 868-77-9
CMF C6 H10 O3



IC ICM G03C001-76
INCL 430270100; 430281100
CC 74-5 (Radiation Chemistry, Photochemistry, and **Photographic** and Other Reprographic Processes)
Section cross-reference(s): 35, 38
IT **25167-42-4DP**, Glycidyl methacrylate-styrene copolymer, Succinimide adduct **86249-19-6DP**, Benzyl methacrylate-Glycidyl methacrylate copolymer, Succinimide adduct **851883-55-1P**
(bottom **antireflective coatings** containing)

L34 ANSWER 15 OF 66 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:428074 HCAPLUS
DOCUMENT NUMBER: 142:472687
TITLE: Manufacture of antistatic antireflective laminates in high productivity
INVENTOR(S): Onda, Satoshi
PATENT ASSIGNEE(S): Mitsubishi Rayon Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005125142	A2	20050519	JP 2003-360520	2003 1021

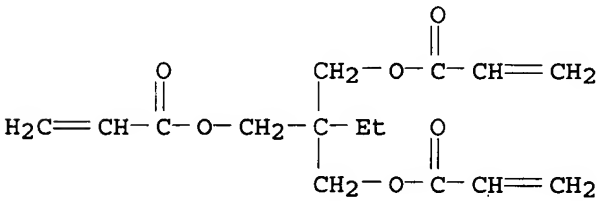
PRIORITY APPLN. INFO.: JP 2003-360520 2003 1021

AB The laminates, useful for display front protective sheets, are manufactured by (i) coating transparent resin sheets with UV-curable coatings containing metal oxide particles chosen from Sb oxide, Sb-doped Sn oxide, ITO, and/or Zn oxide and showing refractive index (n; after cured) ≥1.46, (ii) radiating UV to give the 1st semicured layers, (iii) applying UV curable coatings showing n ≤1.45 thereon, (iv) radiating UV to give the 2nd semicured layers, (v) forming fluoropolymer layers thereon, and (vi) radiating UV for completely curing of the 1st and the 2nd layers.

IT **36446-02-3P**, Trimethylolpropane triacrylate homopolymer
(manufacture of antistatic **antireflective** laminates for display protective sheets by effective curing of multiple UV-curable **coating** layers)
RN 36446-02-3 HCAPLUS
CN 2-Propenoic acid, 2-ethyl-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 15625-89-5
CMF C15 H20 O6



IC ICM B05D007-24
ICS B32B027-18; B32B031-24; G09F009-00; H05B033-02; H05B033-14
CC 74-13 (Radiation Chemistry, Photochemistry, and

Photographic and Other Reprographic Processes)
Section cross-reference(s): 38, 42, 73

IT **36446-02-3P**, Trimethylolpropane triacrylate homopolymer
113217-86-0P
(manufacture of antistatic **antireflective** laminates for display protective sheets by effective curing of multiple UV-curable **coating** layers)

L34 ANSWER 16 OF 66 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:315792 HCAPLUS
DOCUMENT NUMBER: 142:382315
TITLE: Hard-coated laminated films suppressing nonuniform color caused by optical interference and their manufacture
INVENTOR(S): Murakami, Takashi
PATENT ASSIGNEE(S): Konica Minolta Opto Inc., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 77 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005096095	A2	20050414	JP 2003-329596	2003 0922

PRIORITY APPLN. INFO.: JP 2003-329596 2003 0922

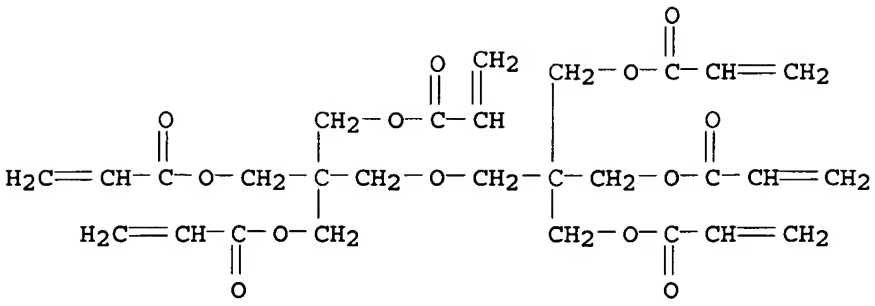
AB The films, useful for polarizers of liquid crystal displays, plasma display panels, etc., consist of (A) surface layers with thickness 0.1-15 μm comprising cellulose esters with total acylation degree ≤2.7, (B) lower layers comprising plasticizers, UV absorbers, and cellulose esters with total acylation degree ≥2.8, and (C) hard coating layers on the surface layers. The films may further have antireflective layers on the hard coatings. The manufacturing method contains cocasting for forming laminated films, coating radiation-curable resins on the films, and curing the coatings.

IT **67653-78-5P**, DPHA homopolymer
(**antireflective** layer or hard **coating** layer; hard-**coated** laminated films suppressing nonuniform color caused by optical interference for displays)

RN 67653-78-5 HCAPLUS
CN 2-Propenoic acid, 2-[[3-[(1-oxo-2-propenyl)oxy]-2,2-bis[[(1-oxo-2-propenyl)oxy]methyl]propoxy]methyl]-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 29570-58-9
CMF C28 H34 O13



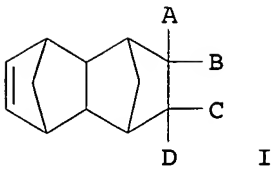
IC ICM B32B023-20
ICS B32B007-02; G02B001-10; G02B001-11
CC 74-13 (Radiation Chemistry, Photochemistry, and **Photographic** and Other Reprographic Processes)
Section cross-reference(s): 38, 42
IT **67653-78-5P**, DPHA homopolymer
(**antireflective** layer or hard **coating** layer; hard-**coated** laminated films suppressing nonuniform color caused by optical interference for displays)

L34 ANSWER 17 OF 66 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:275968 HCAPLUS
DOCUMENT NUMBER: 142:363769
TITLE: Antireflective coating composition for photolithography and antireflective coating formation for semiconductor device fabrication to improve resist pattern resolution and precision
INVENTOR(S): Sugita, Hikaru; Tanaka, Masato; Nomura, Nakaatsu; Sugie, Norihiko; Shimokawa, Tsutomu; Hashiguchi, Yuichi; Okaniwa, Motoki; Konno, Keiji
PATENT ASSIGNEE(S): JSR Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 30 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005084621	A2	20050331	JP 2003-319793	2003 0911

PRIORITY APPLN. INFO.: JP 2003-319793 2003 0911

GI



I

AB The title antireflective coating composition comprises (a) a copolymer including a monomer represented by I (A, D = H, C1-10-hydrocarbyl; B, C = H, C1-10-hydrocarbyl, halo, halogenated C1-10-hydrocarbyl, etc.) and (b) a polymer including a Ph ring, a naphthalene ring, an acenaphthene ring, and/or an anthracene ring.

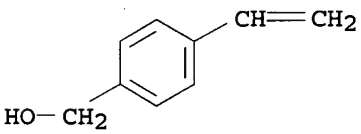
IT **848950-75-4P**, Methyl methacrylate-4-vinylbenzyl alcohol copolymer **848950-76-5P**, tert-Butyl methacrylate-1-vinylnaphthalene copolymer
(**antireflective coating** composition for photolithog. and **antireflective coating** formation for semiconductor device fabrication to improve resist pattern resolution and precision)

RN 848950-75-4 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with 4-ethenylbenzenemethanol (9CI) (CA INDEX NAME)

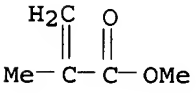
CM 1

CRN 1074-61-9
CMF C9 H10 O



CM 2

CRN 80-62-6
CMF C5 H8 O2

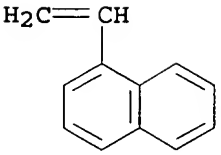


RN 848950-76-5 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 1,1-dimethylethyl ester, polymer with 1-ethenylnaphthalene (9CI) (CA INDEX NAME)

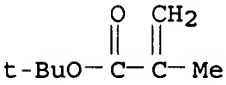
CM 1

CRN 826-74-4
CMF C12 H10



CM 2

CRN 585-07-9
CMF C8 H14 O2



IC ICM G03F007-11
ICS C09D165-00; C09K003-00; G03F007-004; H01L021-027
CC 74-5 (Radiation Chemistry, Photochemistry, and **Photographic** and Other Reprographic Processes)
Section cross-reference(s): 38, 42, 73, 76
IT 126815-72-3P, 8-Methyl-8-carboxymethyltetracyclo[4.4.0.12,5.17,10]-3-dodecene homopolymer 510754-50-4P, Acenaphthylene-4-vinylbenzyl alcohol copolymer **848950-75-4P**, Methyl methacrylate-4-vinylbenzyl alcohol copolymer **848950-76-5P**, tert-Butyl methacrylate-1-vinylnaphthalene copolymer 848950-77-6P, 9-Vinylanthracene-4-vinylbenzyl alcohol copolymer
(**antireflective coating** composition for photolithog. and **antireflective coating** formation for semiconductor device fabrication to improve resist pattern resolution and precision)

L34 ANSWER 18 OF 66 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:253873 HCAPLUS
DOCUMENT NUMBER: 142:326065
TITLE: Preparation of tetraalkoxytitanium coatings with no clouding, low-reflection laminates using them with excellent scratch and crack resistance, their manufacture, and polarizers and liquid crystal displays using them
INVENTOR(S): Takimoto, Masataka; Kurematsu, Masayuki
PATENT ASSIGNEE(S): Konica Minolta Opto Inc., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 45 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005077893	A2	20050324	JP 2003-309783	2003 0902

PRIORITY APPLN. INFO.: JP 2003-309783
2003
0902

OTHER SOURCE(S): MARPAT 142:326065

AB The laminates are manufactured by adding organotitanium compds. Ti(OR)4 (R = C1-8 aliphatic hydrocarbyl) to water and organic solvents, applying them on supports, and drying them at ≥60° or at dew point ≤20°, thus giving LCD with good durability and visibility.

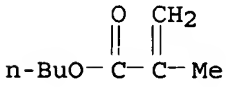
IT **848295-88-5P**
(binder; preparation of tetraalkoxytitanium **coatings** with no clouding for scratch- and crack-resistant **antireflective** films for LCD)

RN 848295-88-5 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, butyl ester, polymer with 2,2'-[oxybis(methylene)]bis[2-(hydroxymethyl)-1,3-propanediol] 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 97-88-1
CMF C8 H14 O2

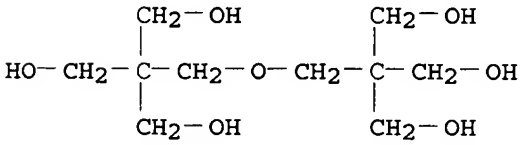


CM 2

CRN 77641-99-7
CMF C10 H22 O7 . x C3 H4 O2

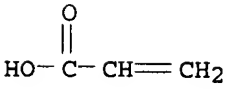
CM 3

CRN 126-58-9
CMF C10 H22 O7



CM 4

CRN 79-10-7
CMF C3 H4 O2



IC ICM G02B001-11
ICS B05D003-02; B05D007-24; B32B007-02; C09D005-00; C09D183-04; C09D185-00; G02B001-10; G02B005-30
CC 74-13 (Radiation Chemistry, Photochemistry, and **Photographic** and Other Reprographic Processes)
Section cross-reference(s): 73
IT **848295-88-5P**
(binder; preparation of tetraalkoxytitanium **coatings** with no clouding for scratch- and crack-resistant **antireflective** films for LCD)

L34 ANSWER 19 OF 66 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:140213 HCAPLUS
DOCUMENT NUMBER: 142:229123
TITLE: Antireflective coatings and films with improved scratch resistance and polarizers, display devices, and hardcoated articles using them
INVENTOR(S): Matsufuji, Akihiro; Obayashi, Tatsuhiko
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 35 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

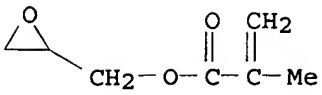
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005043749	A2	20050217	JP 2003-279009	2003 0724

PRIORITY APPLN. INFO.: JP 2003-279009 2003 0724

AB The films consist of hardcoated transparent substrates and coatings from curable compns. containing F-containing vinyl copolymers (A), main chains of which comprise C atoms exclusively, and curable polymers (B) bearing ≥2 ethylenically unsatd. groups.
IT **176778-63-5P 254887-33-7P**, DPHA-UV-6300B copolymer
(hardcoat layer; **antireflective coatings** containing acryloyl-containing vinyl fluoropolymers with improved scratch resistance for display polarizers and hardcoated articles)
RN 176778-63-5 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, oxiranylmethyl ester, polymer with 2,2'-[oxybis(methylene)]bis[2-(hydroxymethyl)-1,3-propanediol] 2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 106-91-2
CMF C7 H10 O3

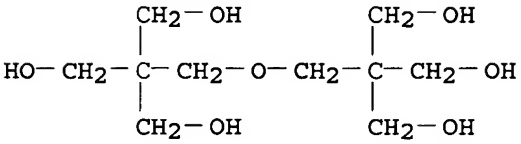


CM 2

CRN 77641-99-7
CMF C10 H22 O7 . x C3 H4 O2

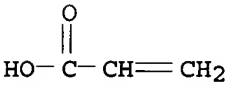
CM 3

CRN 126-58-9
CMF C10 H22 O7



CM 4

CRN 79-10-7
CMF C3 H4 O2



RN 254887-33-7 HCAPLUS
CN 2-Propenoic acid, ester with 2,2'-[oxybis(methylene)]bis[2-(hydroxymethyl)-1,3-propanediol], polymer with UV 6300B (9CI) (CA INDEX NAME)

CM 1

CRN 221353-35-1
CMF Unspecified
CCI PMS, MAN

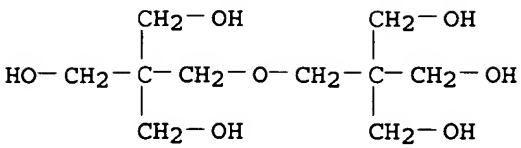
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 77641-99-7
CMF C10 H22 O7 . x C3 H4 O2

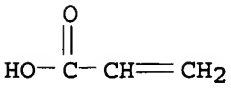
CM 3

CRN 126-58-9
CMF C10 H22 O7



CM 4

CRN 79-10-7
CMF C3 H4 O2



IC ICM G02B001-11
ICS B32B027-30; C08F290-12; G02B001-10; G02B005-30; H05B033-02; H05B033-14
CC 74-13 (Radiation Chemistry, Photochemistry, and **Photographic** and Other Reprographic Processes)
Section cross-reference(s): 38, 42, 73
IT **176778-63-5P 254887-33-7P**, DPHA-UV-6300B copolymer
(hardcoat layer; **antireflective coatings** containing acryloyl-containing vinyl fluoropolymers with improved scratch resistance for display polarizers and hardcoated articles)

L34 ANSWER 20 OF 66 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:135754 HCAPLUS
DOCUMENT NUMBER: 142:229105
TITLE: Curable block copolyester compositions, articles and having cured layers therefrom, weather-resistant antireflective (AR) films, polarizers, and displays therewith
INVENTOR(S): Kato, Eiichi
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 74 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005042072	A2	20050217	JP 2003-280476	2003 0725

PRIORITY APPLN. INFO.: JP 2003-280476 2003 0725

AB The curable compns. contain (1) AB, ABA, or comb-shaped block copolymers composed of block A comprising radically polymerizable

monomers and block B of polyesters and (2) compds. which cure with light or heat. The AR film comprises a transparent support having thereon a multilayer composed of a high-refractive index (n.) layer formed by application and curing of the curable compns. and showing n. 1.55-2.50 and a low-n. layer, provided in this order. In another alternative, the AR film comprises a transparent support having thereon a multilayer composed of an antiglare layer formed by application and curing of the curable compns. which further contains mat particles with diameter 0.5-10 μm and a low-n. layer, provided in this order. Preferably, a hard coat is disposed between the transparent support and the high-n. layer. The polarizer of the display employs the AR film as at least one of the protective films.

IT **254887-33-7P**
(crosslinked, hard **coat**; curable block copolyester compns. for weather-resistant **antireflective** or antiglare films for protection of display polarizers)

RN 254887-33-7 HCAPLUS

CN 2-Propenoic acid, ester with 2,2'-[oxybis(methylene)]bis[2-(hydroxymethyl)-1,3-propanediol], polymer with UV 6300B (9CI) (CA INDEX NAME)

CM 1

CRN 221353-35-1
CMF Unspecified
CCI PMS, MAN

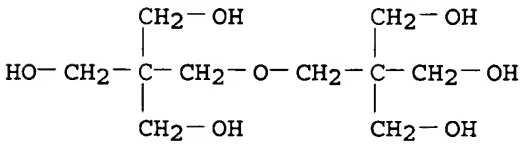
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 77641-99-7
CMF C10 H22 O7 . x C3 H4 O2

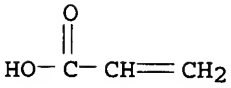
CM 3

CRN 126-58-9
CMF C10 H22 O7



CM 4

CRN 79-10-7
CMF C3 H4 O2



IC ICM C08L087-00
ICS B32B007-02; B32B027-36; C08L055-00; C08L101-02; G02B001-10; G02B001-11; G02B005-30
CC 74-13 (Radiation Chemistry, Photochemistry, and **Photographic** and Other Reprographic Processes)
Section cross-reference(s): 37, 38
IT **254887-33-7P**
(crosslinked, hard **coat**; curable block copolyester compns. for weather-resistant **antireflective** or antiglare films for protection of display polarizers)

L34 ANSWER 21 OF 66 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:116583 HCAPLUS
DOCUMENT NUMBER: 142:186956
TITLE: Multilayer antireflective film, polarizer, and image display device using them
INVENTOR(S): Kato, Eiichi
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 44 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005037739	A2	20050210	JP 2003-275331	2003 0716

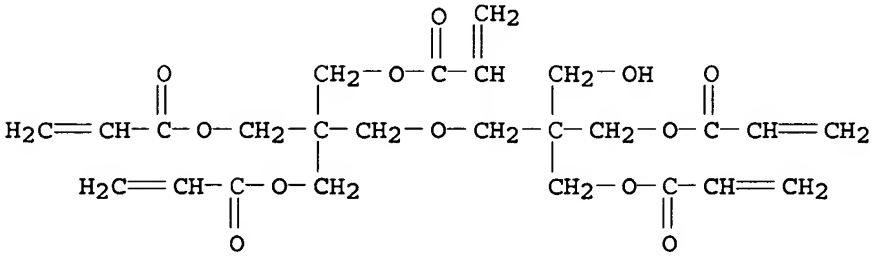
PRIORITY APPLN. INFO.: JP 2003-275331 2003 0716

AB The antireflective film comprises a transparent support successively coated with (A) a high refractive layer and (B) a low refractive layer, in which the layer A has convexo-concave surface with arithmetic average surface roughness (Ra) = 0.001-0.03, ten point average roughness (Rz) = 0.001-0.06, and maximum height (Ry) ≤0.09 μm. Three-layered antireflective film may comprise a transparent support coated with 2 cured layers with different refractivities, and a low refractive layer with refractive index <1.55. In the polarizer, (i) the antireflective film is used as ≥1 of the protective film, or (ii) the antireflective film is used on one side and an optical compensation film with optical anisotropy on the other side. The antireflective film or the polarizer is disposed on the image display surface. The film shows good antireflectivity, mech. strength, and weatherability.
IT **82277-45-0P**, Dipentaerythritolhexaacrylate-dipentaerythritolpentaacrylate copolymer **206254-81-1P**, Glycidyl methacrylate-trimethylolpropane triacrylate copolymer **835617-39-5P**
(hard **coat** layer; **antireflective** film comprising high and low refractive layers for image display device)
RN 82277-45-0 HCAPLUS
CN 2-Propenoic acid, 2-[[3-hydroxy-2,2-bis[[(1-oxo-2-propenyl)oxy]methyl]propoxy]methyl]-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester, polymer with

2-[[3-[(1-oxo-2-propenyl)oxy]-2,2-bis[[(1-oxo-2-propenyl)oxy]methyl]propoxy]methyl]-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl di-2-propenoate (9CI) (CA INDEX NAME)

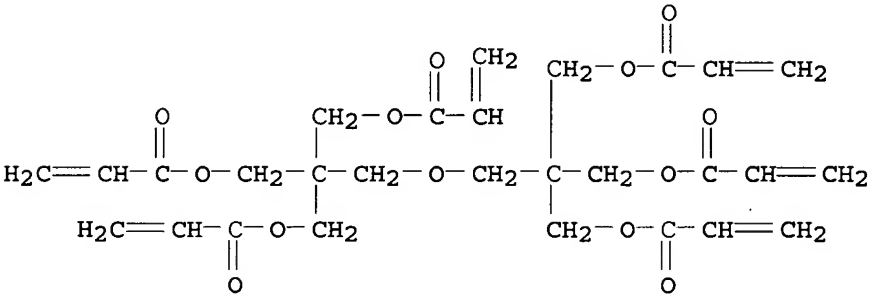
CM 1

CRN 60506-81-2
CMF C25 H32 O12



CM 2

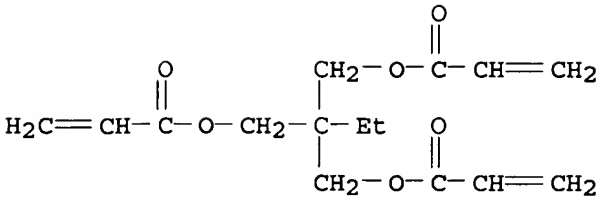
CRN 29570-58-9
CMF C28 H34 O13



RN 206254-81-1 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, oxiranylmethyl ester, polymer with 2-ethyl-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl di-2-propenoate (9CI) (CA INDEX NAME)

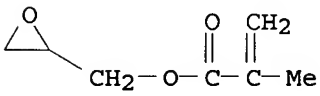
CM 1

CRN 15625-89-5
CMF C15 H20 O6



CM 2

CRN 106-91-2
CMF C7 H10 O3



RN 835617-39-5 HCAPLUS
CN 2-Propenoic acid, 2-[[3-[(1-oxo-2-propenyl)oxy]-2,2-bis[[(1-oxo-2-propenyl)oxy]methyl]propoxy]methyl]-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester, polymer with UV 6300 (9CI) (CA INDEX NAME)

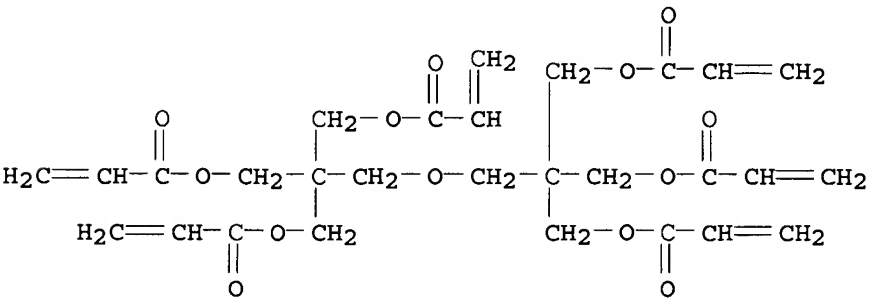
CM 1

CRN 476460-91-0
CMF Unspecified
CCI PMS, MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 29570-58-9
CMF C28 H34 O13



IC ICM G02B001-11
ICS B32B007-02; C03C017-34; G02B001-10; G02B005-30; G02F001-1335
CC 74-13 (Radiation Chemistry, Photochemistry, and **Photographic** and Other Reprographic Processes)
Section cross-reference(s): 73

IT **82277-45-0P**, Dipentaerythritolhexaacrylate-dipentaerythritolpentaacrylate copolymer **206254-81-1P**, Glycidyl methacrylate-trimethylolpropane triacrylate copolymer **835617-39-5P**
(hard **coat** layer; **antireflective** film comprising high and low refractive layers for image display device)

L34 ANSWER 22 OF 66 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:33910 HCAPLUS
DOCUMENT NUMBER: 142:103485
TITLE: Antireflection films with uniform thickness and good heat and soiling resistance, front panels having them, and displays
INVENTOR(S): Murakami, Takashi
PATENT ASSIGNEE(S): Konica Minolta Opto Inc., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 27 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005010188	A2	20050113	JP 2003-170650	2003 0616
PRIORITY APPLN. INFO.:			JP 2003-170650	2003 0616

AB The invention relates to antireflection films with surface contact angle to H2O ≥90° and surface resistivity ≤1011 Ω/cm2 comprising (A) substrate films of polyesters, which are manufactured from ethylene glycol esters of aromatic dicarboxylic acids or their oligomers in the presence of Ti-based catalysts, containing ≤150 ppm (as P) P compds. in the atomic weight ratio of P/Ti of 0.6-4.0, (B) hard coat layers, and (C) antireflection layers containing metal or metal oxide microparticles in ≥1 of their layers, wherein the polyester substrate layers are manufactured by extrusion followed by heat fixing. Thus, di-Me 2,6-naphthalenedicarboxylate and ethylene glycol were polymerized in the presence of (BuO)4Ti, mixed with phenylphosphonic acid, extruded into a film, heat-fixed at 220° for 10 s, coated with a hard coating composition containing dipentaerythritol hexaacrylate, further coated with a high-refractive index composition containing pentaerythritol triacrylate and titania (TTO 51C), UV-cured, coated with a low-refractive index composition containing (EtO)4Si and γ-methaacryloyloxypropyltrimethoxysilane (KBM 503), heated, and UV-cured to give an antireflection film showing contact angle to H2O 90°, surface resistivity 109 Ω/cm2, and no crack after heating at 90° for 500 h.

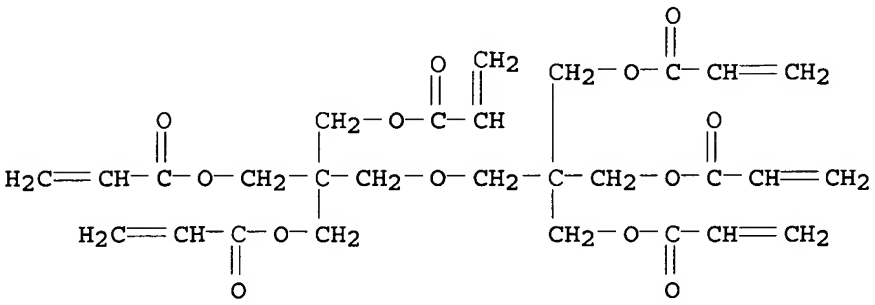
IT **67653-78-5P**, Dipentaerythritol hexaacrylate homopolymer
(hard **coat** layer; **antireflection** films with uniform thickness and good heat and soiling resistance for display front panels)

RN 67653-78-5 HCAPLUS
CN 2-Propenoic acid, 2-[[3-[(1-oxo-2-propenyl)oxy]-2,2-bis[[(1-oxo-2-

propenyl)oxy]methyl]propoxy]methyl]-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 29570-58-9
CMF C28 H34 O13



IC ICM G02B001-11
ICS B32B007-02; B32B027-36; G02B001-10
CC 74-13 (Radiation Chemistry, Photochemistry, and **Photographic** and Other Reprographic Processes)
Section cross-reference(s): 38
IT **67653-78-5P**, Dipentaerythritol hexaacrylate homopolymer
(hard **coat** layer; **antireflection** films with uniform thickness and good heat and soiling resistance for display front panels)

L34 ANSWER 23 OF 66 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:1035944 HCAPLUS
DOCUMENT NUMBER: 141:429802
TITLE: Uniform antireflective films with good surface flatness and visibility, manufacture of protective hard coating films therefor, and displays therewith
INVENTOR(S): Murakami, Takashi; Tanaka, Takeshi
PATENT ASSIGNEE(S): Konica Minolta Opto Inc., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 51 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004341017	A2	20041202	JP 2003-134283	2003 0513

PRIORITY APPLN. INFO.: JP 2003-134283 2003 0513

AB The protective hard coating films are manufactured by (i) coating resin

film substrates with actinic ray-curable resins, (ii) partially winding the coated substrates around supports (e.g., metal belts) having curvature varying according to transportation direction, and (iii) curing the coatings by actinic ray radiation (with the largest intensity around the maximum curvature sites), keeping temperature of the coatings at 30-120°. Also claimed are antireflective films with width 1.3-4 m having the above hard coating films and displays (e.g., LCD) therewith.

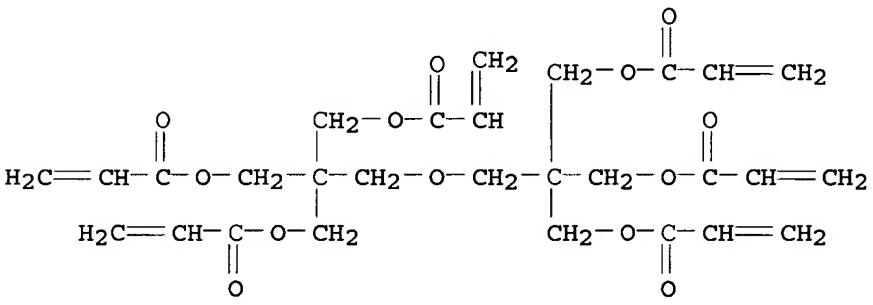
IT **67653-78-5P**, Dipentaerythritol hexaacrylate homopolymer
(hard **coating** layers; manufacture of protective hard **coating** films for display **antireflective** films with good surface flatness and visibility)

RN 67653-78-5 HCAPLUS

CN 2-Propenoic acid, 2-[[3-[(1-oxo-2-propenyl)oxy]-2,2-bis[[(1-oxo-2-propenyl)oxy]methyl]propoxy]methyl]-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 29570-58-9
CMF C28 H34 O13



IC ICM G02B001-10
ICS B05D005-00; B05D007-04; B32B027-16; G02B001-11

CC 74-13 (Radiation Chemistry, Photochemistry, and **Photographic** and Other Reprographic Processes)
Section cross-reference(s): 42, 43, 73

IT **67653-78-5P**, Dipentaerythritol hexaacrylate homopolymer
(hard **coating** layers; manufacture of protective hard **coating** films for display **antireflective** films with good surface flatness and visibility)

L34 ANSWER 24 OF 66 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:1014362 HCAPLUS
DOCUMENT NUMBER: 142:30158
TITLE: Composition containing fluoroaliphatic group-containing polymer, film, antireflection film, and electrooptical display device
INVENTOR(S): Yoshizawa, Masataka; Noro, Masaki; Ibuki, Shuntaro
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 61 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004331812	A2	20041125	JP 2003-129414	2003 0507

PRIORITY APPLN. INFO.: JP 2003-129414 2003 0507

AB The composition contains a (co)polymer (I) involving ≥50 mass% of a fluoroaliph. monomer CH2:C(R0)L(CF2)nH (R0 = H, halogen, Me; L = divalent linking group; n = 1-18). A coating composition made of the composition, another coating composition containing another polymer involving ≥50 mass% of a monomer CH2:C(R1)C(O)X(CH2)m(CF2)nH [R1 = H, halogen, Me; X = O, S, NR2; R2 = H, (substituted) C1-8 alkyl; m = 1-6; n = 1-18], and a laminate containing I are also claimed. The film involves a substrate and ≥1 layers made of the above compns. except the top layer wherein the each composition layer shows good adhesion to a layer on the top. The antireflection film is made of a transparent support and plurality of antireflection layers with different n made of the above compns. A polarizing plate involving the antireflection film as ≥1 of 2 protective film is also claimed. The electrooptical display device has the polarizing plate placed so that a layer with low n is positioned on the viewing side. The coating composition containing the fluoropolymer provides the antireflection film showing uniform optical properties and phys. properties even if the composition is applied in high-speed wet coating process.

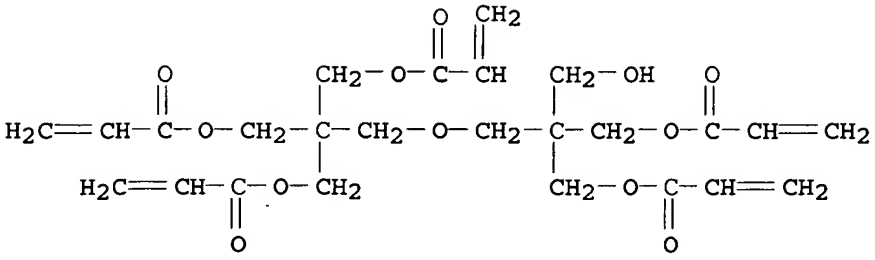
IT **82277-45-0P**, Dipentaerythritol pentaacrylate-dipentaerythritol hexaacrylate copolymer
(hard **coating**; fluoroaliph. group-containing polymer composition for **antireflection** film involving)

RN 82277-45-0 HCAPLUS

CN 2-Propenoic acid, 2-[[3-hydroxy-2,2-bis[[(1-oxo-2-propenyl)oxy]methyl]propoxy]methyl]-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester, polymer with 2-[[3-[(1-oxo-2-propenyl)oxy]-2,2-bis[[(1-oxo-2-propenyl)oxy]methyl]propoxy]methyl]-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl di-2-propenoate (9CI) (CA INDEX NAME)

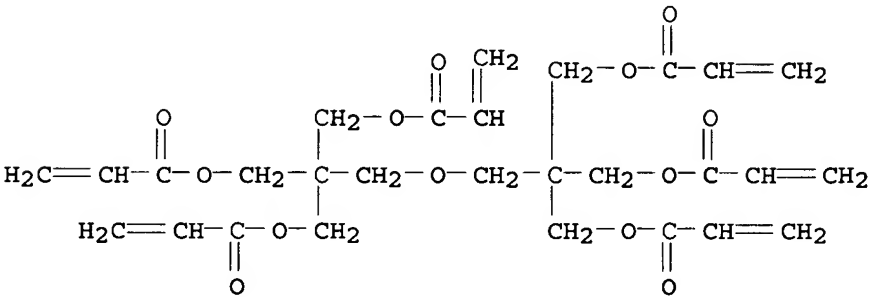
CM 1

CRN 60506-81-2
CMF C25 H32 O12



CM 2

CRN 29570-58-9
CMF C28 H34 O13



IC ICM C08L101-04
ICS B32B007-02; B32B027-30; C08L033-08; G02B001-10; G02B001-11; G02B005-30; G02F001-1335
CC 74-13 (Radiation Chemistry, Photochemistry, and **Photographic** and Other Reprographic Processes)
Section cross-reference(s): 38, 42, 73
IT **82277-45-0P**, Dipentaerythritol pentaacrylate-dipentaerythritol hexaacrylate copolymer 799268-89-6P
(hard **coating**; fluoroaliph. group-containing polymer composition for **antireflection** film involving)

L34 ANSWER 25 OF 66 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:1014309 HCAPLUS
DOCUMENT NUMBER: 142:30157
TITLE: Curable compositions, antireflective films, polarizing sheets, and display devices
INVENTOR(S): Kato, Eiichi
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 54 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 2004331744 A2 20041125 JP 2003-127263
2003
0502
PRIORITY APPLN. INFO.: JP 2003-127263
2003
0502

AB The compns. contain (A) ≥1 silyl-terminated polymer coupling compds. (R1O)3-aR2aSiXW (W = polyester repeating unit or radically polymerizable repeating unit with weight-average mol. weight 2000-20,000; X = divalent organic residue; R1 = aliphatic group, COR10; R10 = hydrocarbyl; R2 = hydrocarbyl; a = 0, 1) and (B) ≥1 silane coupling compds. In the antireflective films having high-refractive-index layers and low-refractive-index layers on transparent supports, the high-refractive-index layers are obtained by curing the compns. containing inorg. particles with n ≥1.70. The polarizing sheets have the antireflective films as protective films of polarizing films. The antireflective films and the polarizing sheets are useful for plasma display panels, flat televisions, and liquid-crystal displays. The compns. give cured products with low curing shrinkage, good crack, curling, and scratch resistance, and high surface hardness.

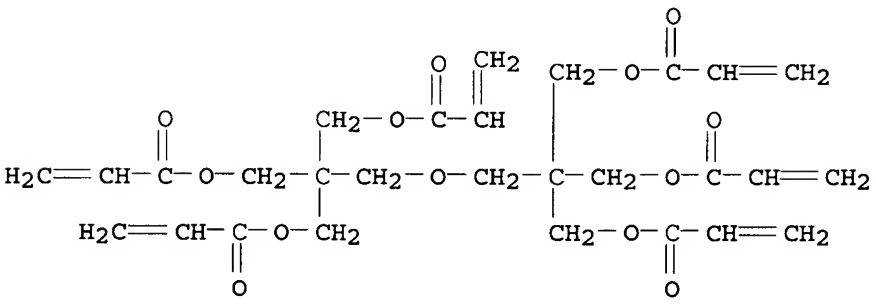
IT **67653-78-5P**, DPHA homopolymer
(antiglaring hard-**coat** layers; coupling compound-containing curable compns. for **antireflective** films of polarizing sheets of displays)

RN 67653-78-5 HCAPLUS

CN 2-Propenoic acid, 2-[[3-[(1-oxo-2-propenyl)oxy]-2,2-bis[[(1-oxo-2-propenyl)oxy]methyl]propoxy]methyl]-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 29570-58-9
CMF C28 H34 O13



IT **254887-33-7P**, DPHA-UV 6300B copolymer
(hard-**coat** layers; coupling compound-containing curable compns. for **antireflective** films of polarizing sheets of displays)

RN 254887-33-7 HCAPLUS

CN 2-Propenoic acid, ester with 2,2'-[oxybis(methylene)]bis[2-(hydroxymethyl)-1,3-propanediol], polymer with UV 6300B (9CI) (CA INDEX NAME)

CM 1

CRN 221353-35-1
CMF Unspecified
CCI PMS, MAN

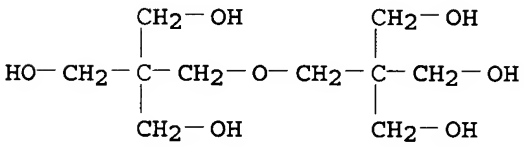
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 77641-99-7
CMF C10 H22 O7 . x C3 H4 O2

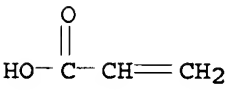
CM 3

CRN 126-58-9
CMF C10 H22 O7



CM 4

CRN 79-10-7
CMF C3 H4 O2



IC ICM C08L101-10
ICS B32B007-02; B32B027-00; C08K005-541; C09D167-00; C09D201-10; G02B001-10; G02B001-11; G02B005-30
CC 74-13 (Radiation Chemistry, Photochemistry, and **Photographic** and Other Reprographic Processes)
Section cross-reference(s): 73
IT **67653-78-5P**, DPHA homopolymer
(antiglaring hard-**coat** layers; coupling compound-containing curable compns. for **antireflective** films of polarizing sheets of displays)
IT **254887-33-7P**, DPHA-UV 6300B copolymer
(hard-**coat** layers; coupling compound-containing curable compns. for **antireflective** films of polarizing sheets of displays)

L34 ANSWER 26 OF 66 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:901005 HCAPLUS
DOCUMENT NUMBER: 141:358265
TITLE: Coating compositions, coatings from them with excellent transparency and electric conductivity and controlled refractive index, antireflective films and display devices using

them
INVENTOR(S): Shinohara, Seiji
PATENT ASSIGNEE(S): Dainippon Printing Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 21 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004300210	A2	20041028	JP 2003-92660	2003 0328

PRIORITY APPLN. INFO.: JP 2003-92660 2003 0328

AB The compns. contain transparent particles, consisting of cores (TiO2 or ZrO2, preferably) and elec. conductive materials (ATO, ITO, or Al Zn oxide, preferably) with different refractive index (RI) on them, and binders, thus giving the coatings (0.01-10.0 μm) with surface resistivity ≤1.0 + 1012 Ω/.box. and RI 1.65-2.00.

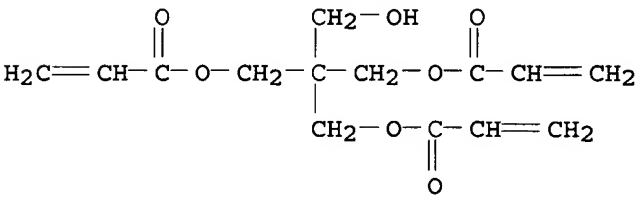
IT **27775-58-2P**, PET 30 homopolymer
(binder; transparent conductive **coatings** containing conductor-**coated** titania or zirconia particles with controlled RI for **antireflective** films for displays)

RN 27775-58-2 HCAPLUS

CN 2-Propenoic acid, 2-(hydroxymethyl)-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 3524-68-3
CMF C14 H18 O7



IC ICM C09D201-00
ICS B05D007-04; B05D007-24; B32B007-02; C09C001-00; C09C003-06; C09D005-00; C09D005-24; C09D007-12; C09D201-06; G02F001-1335; G02B001-10; G02B001-11

CC 74-13 (Radiation Chemistry, Photochemistry, and **Photographic** and Other Reprographic Processes)
Section cross-reference(s): 42

IT **27775-58-2P**, PET 30 homopolymer
(binder; transparent conductive **coatings** containing conductor-**coated** titania or zirconia particles with

controlled RI for **antireflective** films for displays)

L34 ANSWER 27 OF 66 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:900997 HCAPLUS
DOCUMENT NUMBER: 141:386484
TITLE: Coating compositions containing ultrafine particles, coatings with excellent transparency and hardness from them, and antireflective films and display devices using them
INVENTOR(S): Yoshihara, Toshio
PATENT ASSIGNEE(S): Dainippon Printing Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 30 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004300172	A2	20041028	JP 2003-91524	2003 0328

PRIORITY APPLN. INFO.: JP 2003-91524 2003 0328

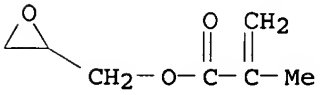
AB The compns. contain dispersible submicron particles (inorg. materials, organic materials, organic-inorg. composites, and/or organic-inorg. core-shell particles, preferably) bearing polymerizable functional groups on the surfaces, thus giving coatings having microvoids (porosity 0.1-80 volume%) with good strength and adhesion, low refractive index (RI, ≤1.45), and reduced content of binders.

IT **26141-88-8P**, Glycidyl methacrylate-methyl methacrylate copolymer **57592-66-2P**, Pentaerythritol tetraacrylate homopolymer
(binder; microvoid **coatings** containing polymerizable ultrafine particles for **antireflective** films for displays with good transparency and hardness)

RN 26141-88-8 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with oxiranylmethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

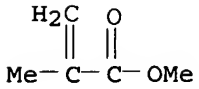
CM 1

CRN 106-91-2
CMF C7 H10 O3



CM 2

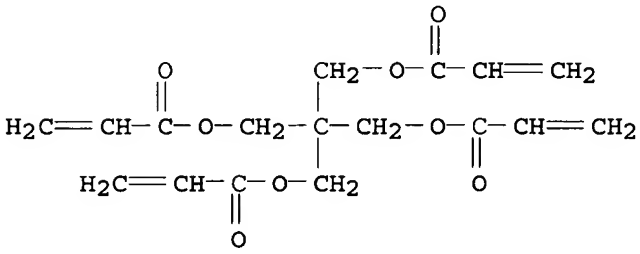
CRN 80-62-6
CMF C5 H8 O2



RN 57592-66-2 HCAPLUS
CN 2-Propenoic acid, 2,2-bis[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

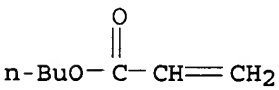
CRN 4986-89-4
CMF C17 H20 O8



IT **197962-77-9DP**, Butyl acrylate-itaconic acid-methyl methacrylate graft copolymer, reaction products with polyethylenimine **779332-81-9DP**, Ethyl methacrylate-Karenz MOI copolymer, reaction products with silica and glycerin acrylate methacrylate
(particle; microvoid **coatings** containing polymerizable ultrafine particles for **antireflective** films for displays with good transparency and hardness)
RN 197962-77-9 HCAPLUS
CN Butanedioic acid, methylene-, polymer with butyl 2-propenoate and methyl 2-methyl-2-propenoate, graft (9CI) (CA INDEX NAME)

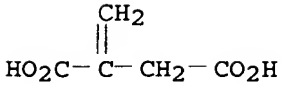
CM 1

CRN 141-32-2
CMF C7 H12 O2



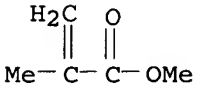
CM 2

CRN 97-65-4
CMF C5 H6 O4



CM 3

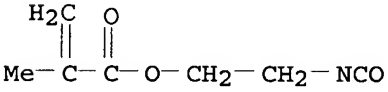
CRN 80-62-6
CMF C5 H8 O2



RN 779332-81-9 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, ethyl ester, polymer with 2-isocyanatoethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

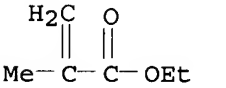
CM 1

CRN 30674-80-7
CMF C7 H9 N O3



CM 2

CRN 97-63-2
CMF C6 H10 O2



IC ICM C09D201-00
ICS B32B007-02; C09C001-00; C09C003-10; C09D001-00; C09D005-00; C09D007-12; G02B001-11; G02F001-1335
CC 74-13 (Radiation Chemistry, Photochemistry, and **Photographic** and Other Reprographic Processes)
Section cross-reference(s): 42, 73
IT **26141-88-8P**, Glycidyl methacrylate-methyl methacrylate copolymer **57592-66-2P**, Pentaerythritol tetraacrylate homopolymer
(binder; microvoid **coatings** containing polymerizable ultrafine particles for **antireflective** films for displays with good transparency and hardness)
IT 919-30-2DP, 3-Aminopropyltriethoxysilane, reaction products with hydroxyethyl methacrylate-Me methacrylate-octafluoropentyl methacrylate copolymer 1709-71-3DP, NK Ester 701A, reaction products with Et acrylate-2-methacryloyloxyethyl isocyanate

copolymer and silica 9002-98-6DP, reaction products with carboxyl-containing organic particle **197962-77-9DP**, Butyl acrylate-itaconic acid-methyl methacrylate graft copolymer, reaction products with polyethylenimine **779332-81-9DP**, Ethyl methacrylate-Karenz MOI copolymer, reaction products with silica and glycerin acrylate methacrylate 779332-82-0DP, 2-Hydroxyethyl methacrylate-methyl methacrylate-1H,1H,5H-octafluoropentyl methacrylate copolymer, reaction products with aminopropyltriethoxysilane
(particle; microvoid **coatings** containing polymerizable ultrafine particles for **antireflective** films for displays with good transparency and hardness)

L34 ANSWER 28 OF 66 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:801619 HCAPLUS
DOCUMENT NUMBER: 141:322708
TITLE: High-refractive index cured films, preparation of curable coating compositions for films, and antireflective films, polarizers, and displays assembled with the same
INVENTOR(S): Kato, Eiichi
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 36 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004271735	A2	20040930	JP 2003-60351	2003 0306

PRIORITY APPLN. INFO.: JP 2003-60351 2003 0306

AB The cured films with refractive index 1.6-2.4 are formed from curable coating compns. containing (A) TiO2-based inorg. fine particles containing Co, Zr, and/or Al, (B) hydrolyzable functional group-containing organometallic compds. and/or their partial condensates, and optionally, (C) actinic energy ray-reactive and hydrolyzable functional group-containing organosilicon compds. and/or their partial condensates and photopolymn. initiators. The preparation of the curable coating compns. involves a step of inorg. ultrafine particle dispersions with mean particle size ≤100 nm by wet dispersion of the inorg. particles and dispersing agents containing ≥1 polar groups by using media with mean particle size <1 mm. The antireflective (AR) film comprises a transparent support having thereon a bilayered structure composed of the cured film layer topped with a low-refractive index (n.) layer having n. <1.55. In another alternative, the AR film comprises a transparent support having thereon a 3-layered structure composed of bilayers of the cured film layers with different n. topped with a low-n. layer having n. <1.55. The polarizer employs the AR film as at least one of the protective films of the polarizing film. In another alternative, the polarizer employs the AR film as one of the protective films of the polarizing film and an optically

compensating film having optical anisotropy as the other protective film of the polarizing film. The display is assembled with the AR film or the polarizer on the imaging surface.

IT **254887-33-7P**, DPHA-UV 6300B copolymer
(hard **coat** layer; preparation of curable **coating** compns. for **antireflective** protective films for display polarizers)

RN 254887-33-7 HCAPLUS

CN 2-Propenoic acid, ester with 2,2'-[oxybis(methylene)]bis[2-(hydroxymethyl)-1,3-propanediol], polymer with UV 6300B (9CI) (CA INDEX NAME)

CM 1

CRN 221353-35-1
CMF Unspecified
CCI PMS, MAN

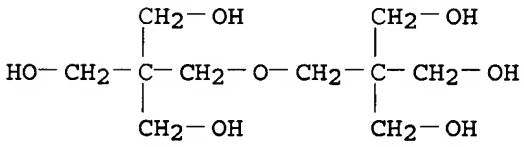
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 77641-99-7
CMF C10 H22 O7 . x C3 H4 O2

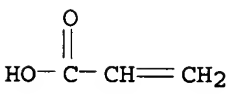
CM 3

CRN 126-58-9
CMF C10 H22 O7



CM 4

CRN 79-10-7
CMF C3 H4 O2



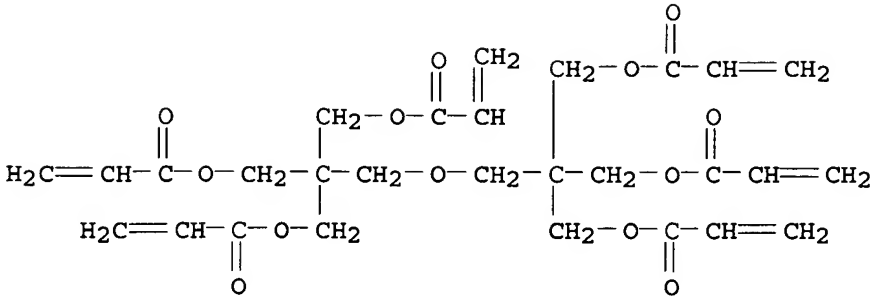
IT **67653-78-5P**, DPHA homopolymer
(hard **coating**; preparation of curable **coating** compns. for **antireflective** protective films for display polarizers)

RN 67653-78-5 HCAPLUS

CN 2-Propenoic acid, 2-[[3-[(1-oxo-2-propenyl)oxy]-2,2-bis[[(1-oxo-2-propenyl)oxy]methyl]propoxy]methyl]-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 29570-58-9
CMF C28 H34 O13



IC ICM G02B001-10
ICS B32B009-00; B32B027-04; C08J005-18; C09D004-00; C09D005-00; C09D007-12; C09D143-04; C09D183-04; C09D185-00; G02B005-30; G02F001-1335; C08L083-04
CC 74-13 (Radiation Chemistry, Photochemistry, and **Photographic** and Other Reprographic Processes)
Section cross-reference(s): 38, 73
IT **254887-33-7P**, DPHA-UV 6300B copolymer
(hard **coat** layer; preparation of curable **coating** compns. for **antireflective** protective films for display polarizers)
IT **67653-78-5P**, DPHA homopolymer
(hard **coating**; preparation of curable **coating** compns. for **antireflective** protective films for display polarizers)

L34 ANSWER 29 OF 66 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:757002 HCAPLUS
DOCUMENT NUMBER: 141:285913
TITLE: High refractive index layer production of curable coating composition for antireflection film and polarizing plate and display device
INVENTOR(S): Kato, Eiichi
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: PCT Int. Appl., 174 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004079407	A1	20040916	WO 2004-JP2929	20040305

W: AE, AE, AG, AL, AL, AM, AM, AM, AT, AT, AU, AZ, AZ, BA, BB, BG, BG, BR, BR, BW, BY, BY, BZ, BZ, CA, CH, CN, CN, CO, CO, CR, CR, CU, CU, CZ, CZ, DE, DE, DK, DK, DM, DZ, EC, EC, EE, EE, EG, ES, ES, FI, FI, GB, GD, GE, GE, GH,

GM, HR, HR, HU, HU, ID, IL, IN, IS, KE, KE, KG, KG, KP,
KP, KP, KR, KR, KZ, KZ, KZ, LC, LK, LR, LS, LS, LT, LU,
LV, MA, MD, MD, MG, MK, MN, MW, MX, MX, MZ, MZ, NA, NI,
NI, NO
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW,
AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR,
HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF,
BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD,
TG, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE,
SN, TD, TG

JP 2004271612	A2	20040930	JP 2003-58579	2003 0305
JP 2004277650	A2	20041007	JP 2003-73962	2003 0318

PRIORITY APPLN. INFO.:

JP 2003-58579	A 2003 0305
JP 2003-73962	A 2003 0318

AB Display device comprising polarizing plate with antireflection film layer having a high refractive index and excellent in weatherability or optical properties and durability is provided. High refractive index layer contains specific fine particles of a high refractive index composite oxide comprising a titanium element or a bismuth element.

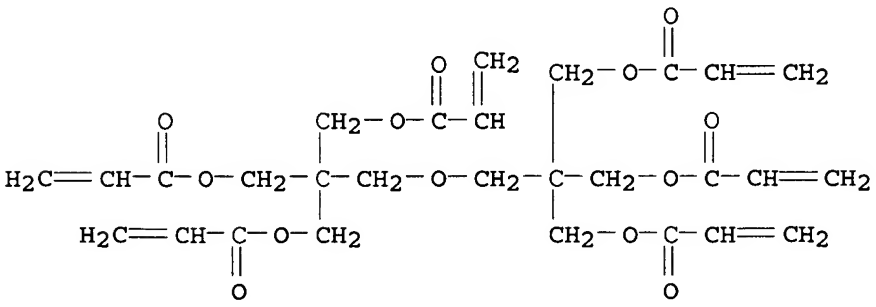
IT **67653-78-5P**, Dipentaerythritol hexaacrylate, homopolymer
82277-45-0P, Dipentaerythritol hexaacrylate-dipentaerythritol pentaacrylate copolymer
(high refractive index layer production of curable **coating** composition for **antireflection** film and polarizing plate and display device)

RN 67653-78-5 HCAPLUS

CN 2-Propenoic acid, 2-[[3-[(1-oxo-2-propenyl)oxy]-2,2-bis[[(1-oxo-2-propenyl)oxy]methyl]propoxy]methyl]-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

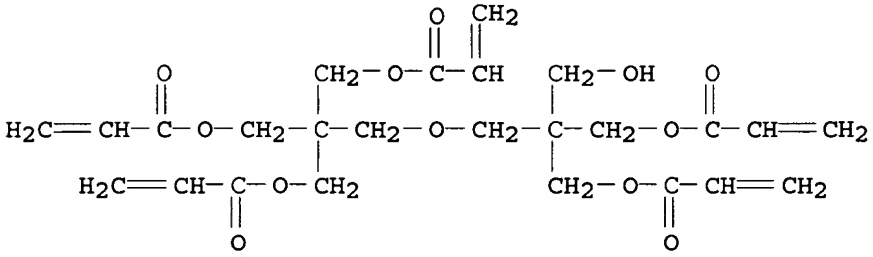
CRN 29570-58-9
CMF C28 H34 O13



RN 82277-45-0 HCAPLUS
CN 2-Propenoic acid, 2-[[3-hydroxy-2,2-bis[[(1-oxo-2-propenyl)oxy]methyl]propoxy]methyl]-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester, polymer with 2-[[3-[(1-oxo-2-propenyl)oxy]-2,2-bis[[(1-oxo-2-propenyl)oxy]methyl]propoxy]methyl]-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl di-2-propenoate (9CI) (CA INDEX NAME)

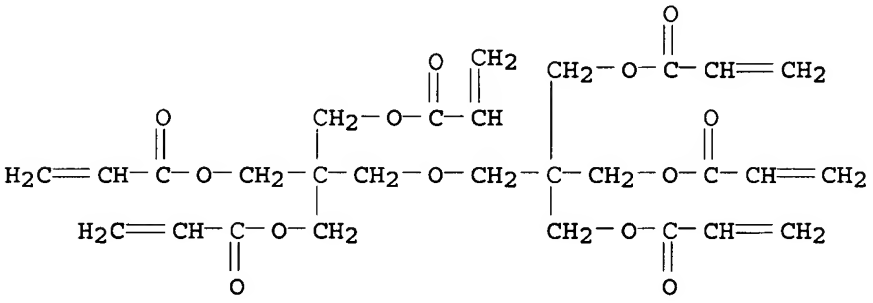
CM 1

CRN 60506-81-2
CMF C25 H32 O12



CM 2

CRN 29570-58-9
CMF C28 H34 O13



IC ICM G02B001-11
ICS B32B007-02
CC 74-13 (Radiation Chemistry, Photochemistry, and **Photographic** and Other Reprographic Processes)
IT **67653-78-5P**, Dipentaerythritol hexaacrylate, homopolymer
82277-45-0P, Dipentaerythritol hexaacrylate-dipentaerythritol pentaacrylate copolymer 156772-86-0P, γ-Glycidoxypropylmethyldiethoxysilane-tetraethoxysilane copolymer
(high refractive index layer production of curable **coating** composition for **antireflection** film and polarizing plate and display device)
REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE

FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L34 ANSWER 30 OF 66 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:449614 HCAPLUS
DOCUMENT NUMBER: 141:31158
TITLE: Cellulose ester-based optical films, their manufacture, and antireflective polarizers and displays employing the same
INVENTOR(S): Murakami, Takashi
PATENT ASSIGNEE(S): Konica Minolta Holdings Inc., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 90 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004155146	A2	20040603	JP 2002-325039	2002 1108

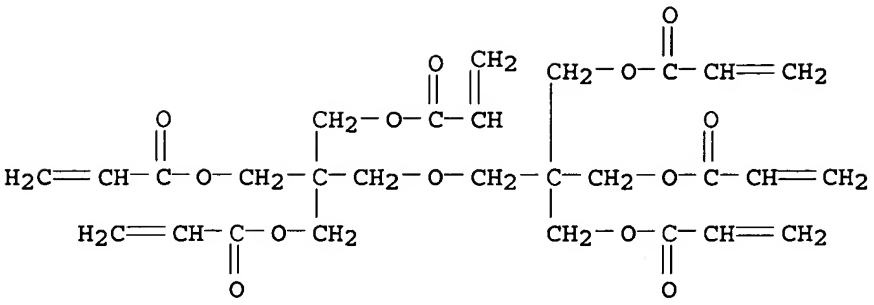
PRIORITY APPLN. INFO.: JP 2002-325039 2002 1108

AB Optical films of cellulose aromatic carboxylates having metal compound layers thereon (via hard coat layers) formed by near-atmospheric plasma deposition carried out in N-containing atmospheric, are claimed. The films have less streak defects or interference fringes and show low manufacturing cost.

IT **67653-78-5P**, Dipentaerythritol hexaacrylate homopolymer
(hard **coat** layers; cellulose ester-based optical films with less defects nor fringes for **antireflective** polarizers of LCD)
RN 67653-78-5 HCAPLUS
CN 2-Propenoic acid, 2-[[3-[(1-oxo-2-propenyl)oxy]-2,2-bis[[(1-oxo-2-propenyl)oxy]methyl]propoxy]methyl]-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 29570-58-9
CMF C28 H34 O13



IC ICM B32B009-00
ICS C08J007-00; C23C016-30; G02B001-10; G02B001-11; G02B005-30; C08L001-10
CC 74-13 (Radiation Chemistry, Photochemistry, and **Photographic** and Other Reprographic Processes)
Section cross-reference(s): 38, 73
IT **67653-78-5P**, Dipentaerythritol hexaacrylate homopolymer
(hard **coat** layers; cellulose ester-based optical films with less defects nor fringes for **antireflective** polarizers of LCD)

L34 ANSWER 31 OF 66 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:330841 HCAPLUS
DOCUMENT NUMBER: 140:365757
TITLE: Anti-reflective hard coat film for polarizing plates for optical imaging device
INVENTOR(S): Otani, Yoshiaki
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 38 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

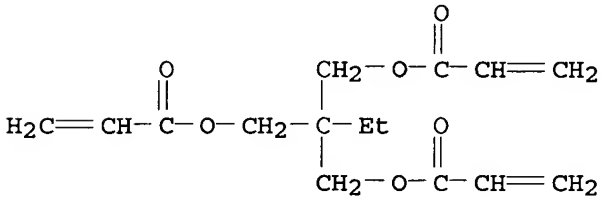
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004126206	A2	20040422	JP 2002-289943	2002 1002
PRIORITY APPLN. INFO.:			JP 2002-289943	2002 1002

AB The title anti-reflective hard coat film has a hard coat layer and a low refractive material layer on a transparent support of ≤60 μm thickness, wherein the hard coat layer is made of a hardenable resin having ethylenic unsatd. groups and ring-opening polymerizable groups. The anti-reflective film is thin and light and shows high hardness and good anti-curl.
IT **206254-81-1P**, Glycidyl methacrylate/Viscoat 295 copolymer
(hard **coat** of **anti-reflective** hard **coat** film)
RN 206254-81-1 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, oxiranylmethyl ester, polymer with

2-ethyl-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl di-2-propenoate (9CI) (CA INDEX NAME)

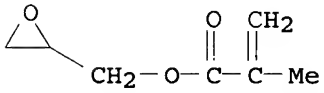
CM 1

CRN 15625-89-5
CMF C15 H20 O6



CM 2

CRN 106-91-2
CMF C7 H10 O3



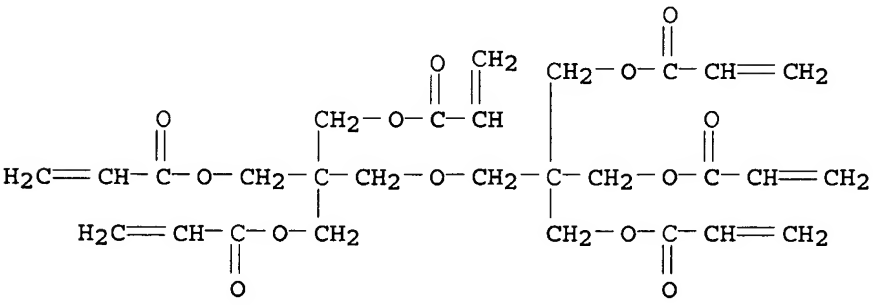
IT **67653-78-5P**, 2-Propenoic acid, 2-[[3-[(1-oxo-2-propenyl)oxy]-2,2-bis[[(1-oxo-2-propenyl)oxy]methyl]propoxy]methyl]-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester, homopolymer
(polymerized DPHA; hard **coat** of **anti-reflective** hard **coat** film)

RN 67653-78-5 HCAPLUS

CN 2-Propenoic acid, 2-[[3-[(1-oxo-2-propenyl)oxy]-2,2-bis[[(1-oxo-2-propenyl)oxy]methyl]propoxy]methyl]-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 29570-58-9
CMF C28 H34 O13



IC ICM G02B001-11
ICS B32B007-02; G02B005-30; G02F001-1335
CC 74-13 (Radiation Chemistry, Photochemistry, and **Photographic** and Other Reprographic Processes)
Section cross-reference(s): 35
IT 94108-97-1DP, Ditrimethylolpropane tetraacrylate, polymer with epoxy resin **206254-81-1P**, Glycidyl methacrylate/Viscoat 295 copolymer
(hard **coat** of **anti-reflective** hard **coat** film)
IT **67653-78-5P**, 2-Propenoic acid, 2-[[3-[(1-oxo-2-propenyl)oxy]-2,2-bis[[(1-oxo-2-propenyl)oxy]methyl]propoxy]methyl]-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester, homopolymer
(polymerized DPHA; hard **coat** of **anti-reflective** hard **coat** film)

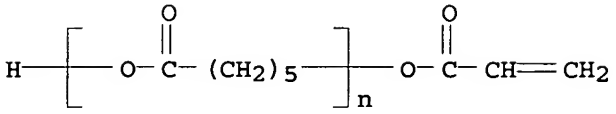
L34 ANSWER 32 OF 66 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:200413 HCAPLUS
DOCUMENT NUMBER: 140:261483
TITLE: Curable hard coating compositions with decreased postcure shrinkage, their coated products, and antiscratch displays using them
INVENTOR(S): Sakurai, Yasunari; Matsufuji, Akihiro; Ichinose, Tomonori
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 28 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004075816	A2	20040311	JP 2002-236754	2002 0815
PRIORITY APPLN. INFO.:			JP 2002-236754	2002 0815

AB The compns. contain (A) compds., which have ≥2 ethylenically unsatd. groups and linking groups comprising repeating units R1O (R1 = C2-5-alkylene) or COR2O (R2 = same as R1) and (B) compds. having ≥2 ring-opening-polymerizable groups. The unsatd. groups and the ring-opening-polymerizable groups are both polymerized to give a cured hard coating.
IT **465498-53-7P**
(**antireflective** layer; hard **coat** films with decreased postcure shrinkage for antiscratch displays)
RN 465498-53-7 HCAPLUS
CN 2-Propenoic acid, 2-[[3-[(1-oxo-2-propenyl)oxy]-2,2-bis[[(1-oxo-2-propenyl)oxy]methyl]propoxy]methyl]-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester, polymer with α-hydro-ω-[(1-oxo-2-propenyl)oxy]poly[oxy(1-oxo-1,6-hexanediyl)] (9CI) (CA INDEX NAME)

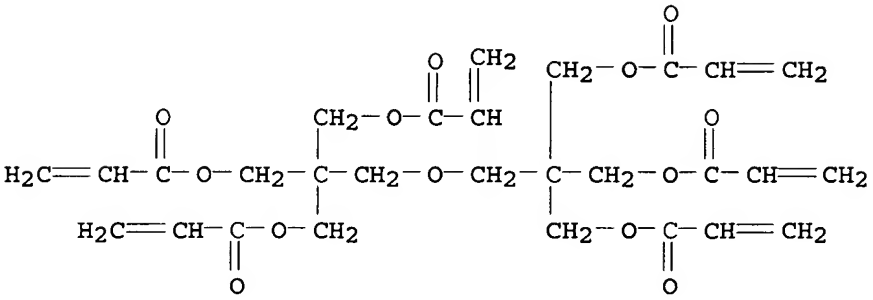
CM 1

CRN 97387-29-6
CMF (C6 H10 O2)n C3 H4 O2
CCI PMS



CM 2

CRN 29570-58-9
CMF C28 H34 O13



IC ICM C08G059-02
ICS C08J007-04; G02B001-10; C08L101-00
CC 74-13 (Radiation Chemistry, Photochemistry, and **Photographic** and Other Reprographic Processes)
Section cross-reference(s): 42
IT **465498-53-7P** 601484-78-0P, Aronix M 5300-Megafac 531A-pentaerythritol tetraacrylate copolymer
(**antireflective** layer; hard **coat** films with decreased postcure shrinkage for antiscratch displays)

L34 ANSWER 33 OF 66 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:180440 HCAPLUS
DOCUMENT NUMBER: 140:243668
TITLE: Antireflective layer of polysiloxane-grafted fluoropolymers, antireflective film provided with the antireflective layer by solvent casting, and its optical imaging device
INVENTOR(S): Kato, Eiichi
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 48 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

JP 2004069983	A2	20040304	JP 2002-228813	2002 0806

PRIORITY APPLN. INFO.: JP 2002-228813 2002 0806

AB The antireflective layer has a low-refractive index layer formed by application and curing of a film-forming composition containing (i) graft copolymers (GP) prepared by copolymg. ≥1 monofunctional monomers (A) bearing ≥1 groups selected from OSiR11R12 and OSiR13R14R15 (R11-R15 = aliphatic or aromatic group) and ≥1 monofunctional macromonomers (MM) with Mw ≤2.0 + 104 and involving mer units represented by CF2CFR0f (CFR0f = F, C1-7 perfluoroalkyl, ORf1; ORf1 = C1-22 F-containing aliphatic group) and (ii) hardeners and/or curing accelerators. The optical imaging devices such as CRT, PDP, and LCD has the antireflective film showing high scratch resistance and antisoiling property.

IT **254887-33-7P**, DPHA-UV 6300B copolymer
(hard **coat**; **antireflective** film provided with **antireflective** layer of polysiloxane-grafted fluoropolymers by solvent casting for displays)

RN 254887-33-7 HCAPLUS

CN 2-Propenoic acid, ester with 2,2'-[oxybis(methylene)]bis[2-(hydroxymethyl)-1,3-propanediol], polymer with UV 6300B (9CI) (CA INDEX NAME)

CM 1

CRN 221353-35-1
CMF Unspecified
CCI PMS, MAN

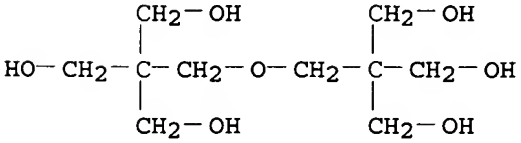
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 77641-99-7
CMF C10 H22 O7 . x C3 H4 O2

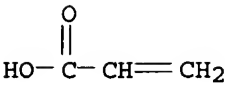
CM 3

CRN 126-58-9
CMF C10 H22 O7



CM 4

CRN 79-10-7
CMF C3 H4 O2



IC ICM G02B001-11
ICS B32B007-02; B32B027-00; G02F001-1335
CC 74-13 (Radiation Chemistry, Photochemistry, and **Photographic** and Other Reprographic Processes)
Section cross-reference(s): 38, 73
IT **254887-33-7P**, DPHA-UV 6300B copolymer
(hard **coat**; **antireflective** film provided with **antireflective** layer of polysiloxane-grafted fluoropolymers by solvent casting for displays)

L34 ANSWER 34 OF 66 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:180421 HCAPLUS
DOCUMENT NUMBER: 140:243667
TITLE: Antireflective layer, antireflective film provided with the layer by solvent casting, and optical imaging device assembled with the same
INVENTOR(S): Obayashi, Tatsuhiko; Hosokawa, Takashi
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 29 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004069866	A2	20040304	JP 2002-226746	2002 0802

PRIORITY APPLN. INFO.: JP 2002-226746 2002 0802

AB The antireflective (AR) layer has a low refractive index layer of a cured copolymer involving polysiloxane moiety in the main chain, mer units derived from F-containing vinyl monomers, and mer units bearing (meth)acryloyl group in the side chain 30-70 mol% per all of the mer units other than the polysiloxane moieties. The AR film with the AR layer is suitable for CRT, PDP, EL displays, and LCD.
IT **254887-33-7P**, DPHA-UV 6300B copolymer
(hard **coat**; **antireflective** film provided with polysiloxane-fluoropolymer-based **antireflective** layer by solvent casting for displays)
RN 254887-33-7 HCAPLUS
CN 2-Propenoic acid, ester with 2,2'-[oxybis(methylene)]bis[2-(hydroxymethyl)-1,3-propanediol], polymer with UV 6300B (9CI) (CA INDEX NAME)

CM 1

CRN 221353-35-1
CMF Unspecified
CCI PMS, MAN

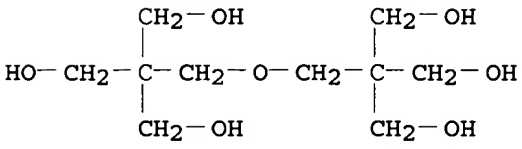
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 77641-99-7
CMF C10 H22 O7 . x C3 H4 O2

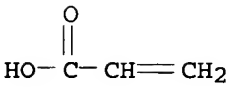
CM 3

CRN 126-58-9
CMF C10 H22 O7



CM 4

CRN 79-10-7
CMF C3 H4 O2



IC ICM G02B001-11
ICS B32B027-00; B32B027-28; G02F001-1335; C09D005-00; C09D153-00
CC 74-13 (Radiation Chemistry, Photochemistry, and **Photographic** and Other Reprographic Processes)
Section cross-reference(s): 38, 73
IT **254887-33-7P**, DPHA-UV 6300B copolymer
(hard **coat**; **antireflective** film provided with polysiloxane-fluoropolymer-based **antireflective** layer by solvent casting for displays)

L34 ANSWER 35 OF 66 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:117536 HCAPLUS
DOCUMENT NUMBER: 140:172278
TITLE: Antireflective films, their manufacture, polarizing plates, and display devices
INVENTOR(S): Ishizuka, Takahiro; Obayashi, Tatsuhiko; Ibuki, Shuntaro
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 45 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004042278	A2	20040212	JP 2002-199196	20020708
PRIORITY APPLN. INFO.:			JP 2002-199196	20020708

OTHER SOURCE(S): MARPAT 140:172278

AB In manufacture of the films comprising transparent supports having hard-coat layers and fluoropolymer-containing low-refractive-index layers, coating solns. for the hard-coat layers and/or the low-refractive-index layers contain vinyl polymers obtained from H2:CR1YLSiX1X2X3 [R1 = H, Me, MeO, alkoxycarbonyl, cyano, F, Cl; Y = single bond, ester, amido, O, urea; L = divalent linking group; X1-X3 = halo, OH, alkoxy, (un)substituted acyloxy]. The polarizing plates contain the antireflective films as ≥1 of 2 protective films for polarizing layers. The display devices have the antireflective films with the low-refractive-index layers facing to the visible sides. The antireflective films show good scratch and stain resistance.

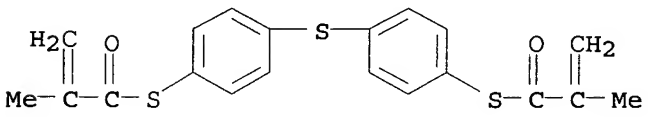
IT **399510-23-7P**, DPHA-MPSMA copolymer **655244-60-3P**
(antiglaring hard-**coat** layers; scratch-resistant **antireflective** films for protective films of display polarizers)

RN 399510-23-7 HCAPLUS

CN 2-Propenoic acid, 2-[[3-[(1-oxo-2-propenyl)oxy]-2,2-bis[[(1-oxo-2-propenyl)oxy]methyl]propoxy]methyl]-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester, polymer with S,S'-(thiodi-4,1-phenylene) bis(2-methyl-2-propenethioate) (9CI) (CA INDEX NAME)

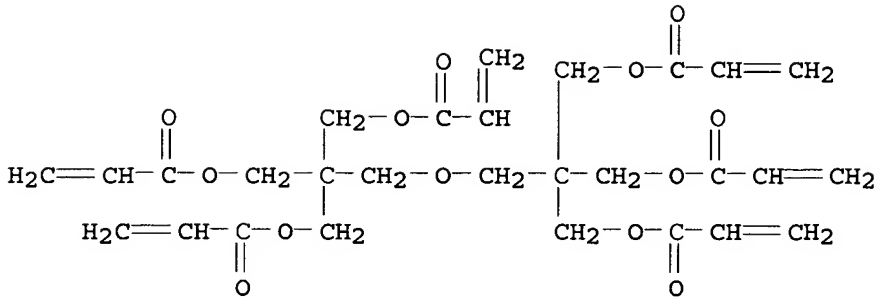
CM 1

CRN 129283-82-5
CMF C20 H18 O2 S3



CM 2

CRN 29570-58-9
CMF C28 H34 O13



RN 655244-60-3 HCAPLUS
CN 2-Propenoic acid, 2-[[3-[(1-oxo-2-propenyl)oxy]-2,2-bis[[(1-oxo-2-propenyl)oxy]methyl]propoxy]methyl]-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester, polymer with DeSolite Z 7401 (9CI) (CA INDEX NAME)

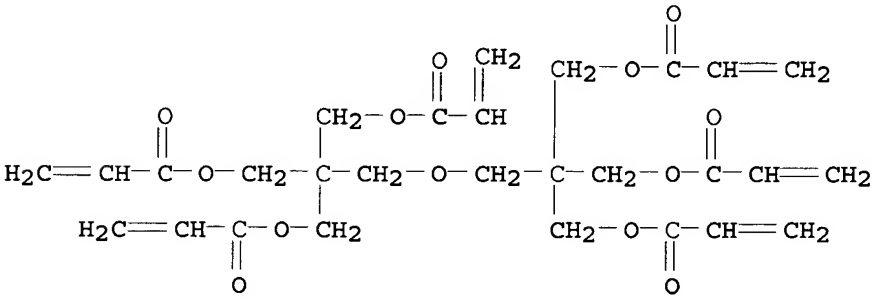
CM 1

CRN 407630-06-2
CMF Unspecified
CCI MAN

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

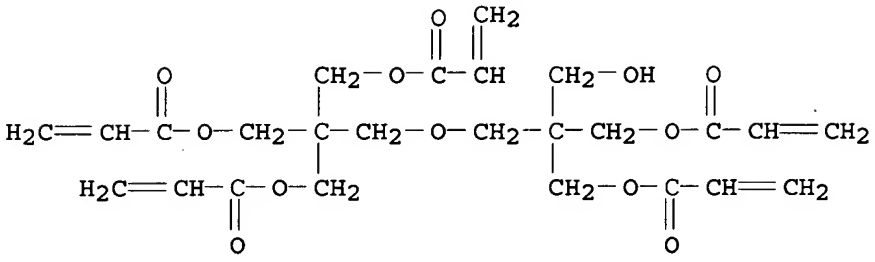
CRN 29570-58-9
CMF C28 H34 O13



IT **82277-45-0P**, Dipentaerythritol hexaacrylate-dipentaerythritol pentaacrylate copolymer
(hard-**coat** layers; scratch-resistant **antireflective** films for protective films of display polarizers)
RN 82277-45-0 HCAPLUS
CN 2-Propenoic acid, 2-[[3-hydroxy-2,2-bis[[(1-oxo-2-propenyl)oxy]methyl]propoxy]methyl]-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester, polymer with 2-[[3-[(1-oxo-2-propenyl)oxy]-2,2-bis[[(1-oxo-2-propenyl)oxy]methyl]propoxy]methyl]-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl di-2-propenoate (9CI) (CA INDEX NAME)

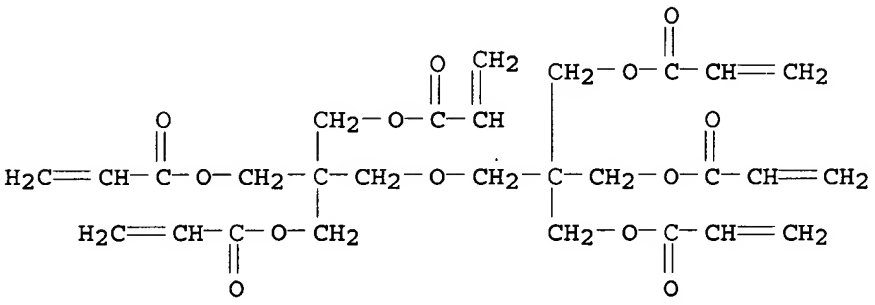
CM 1

CRN 60506-81-2
CMF C25 H32 O12



CM 2

CRN 29570-58-9
CMF C28 H34 O13



IC ICM B32B027-30
ICS B32B007-02; B32B027-00; G02F001-1335
CC 74-13 (Radiation Chemistry, Photochemistry, and **Photographic** and Other Reprographic Processes)
Section cross-reference(s): 73
IT **399510-23-7P**, DPHA-MPSMA copolymer **655244-60-3P**
(antiglaring hard-**coat** layers; scratch-resistant **antireflective** films for protective films of display polarizers)
IT **82277-45-0P**, Dipentaerythritol hexaacrylate-dipentaerythritol pentaacrylate copolymer
(hard-**coat** layers; scratch-resistant **antireflective** films for protective films of display polarizers)

L34 ANSWER 36 OF 66 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2003:749971 HCAPLUS
DOCUMENT NUMBER: 139:268112
TITLE: Hard-coat films and display devices using them
INVENTOR(S): Matsufuji, Akihiro; Hatakeyama, Kenichiro
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 12 pp.

CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003266607	A2	20030924	JP 2002-70159	2002 0314

PRIORITY APPLN. INFO.: JP 2002-70159 2002 0314

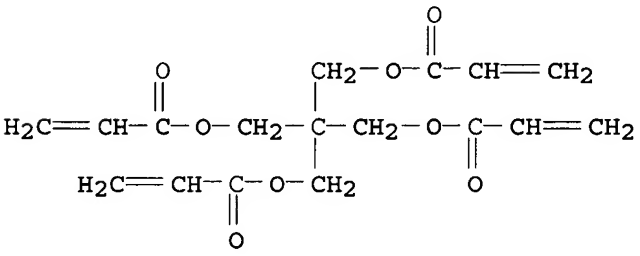
AB In the films obtained by applying curable compns. on transparent substrate films and curing the compns. to form hard-coat layers, initial inclination of load for displacement in bending test is ≥1.7 times as many as that of the substrates before formation of the hard-coat layers. The films are useful for protective films of cathode-ray tubes, liquid-crystal displays, plasma display panels, etc. Hard-coat films having functional thin films are also claimed. The hard-coat films show high surface hardness and good scratch resistance.

IT **57592-66-2P**, Pentaerythritol tetraacrylate homopolymer
465498-53-7P
(**antireflective** layers; hard-**coat** films with high surface hardness and good scratch resistance for displays)

RN 57592-66-2 HCAPLUS
CN 2-Propenoic acid, 2,2-bis[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

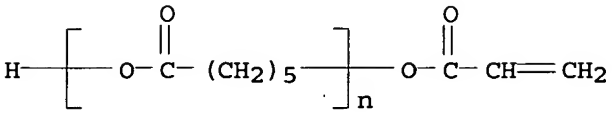
CRN 4986-89-4
CMF C17 H20 O8



RN 465498-53-7 HCAPLUS
CN 2-Propenoic acid, 2-[[3-[(1-oxo-2-propenyl)oxy]-2,2-bis[[(1-oxo-2-propenyl)oxy]methyl]propoxy]methyl]-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester, polymer with α-hydro-ω-[(1-oxo-2-propenyl)oxy]poly[oxy(1-oxo-1,6-hexanediyl)] (9CI) (CA INDEX NAME)

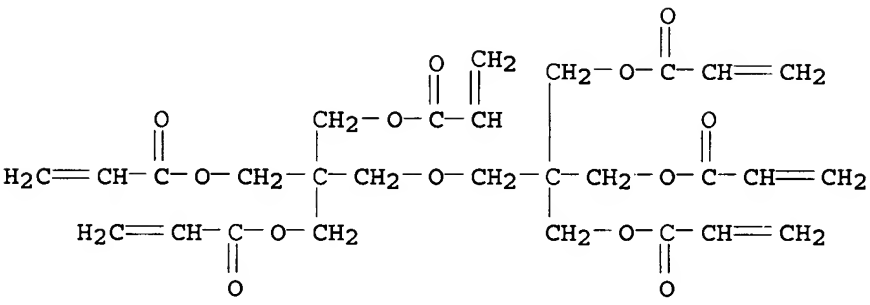
CM 1

CRN 97387-29-6
CMF (C6 H10 O2)n C3 H4 O2
CCI PMS



CM 2

CRN 29570-58-9
CMF C28 H34 O13



IC ICM B32B027-08
ICS C08J007-04; G02B001-10; G02B001-11; G02F001-1335; C08L101-00
CC 74-13 (Radiation Chemistry, Photochemistry, and **Photographic** and Other Reprographic Processes)
IT **57592-66-2P**, Pentaerythritol tetraacrylate homopolymer
465498-53-7P
(**antireflective** layers; hard-**coat** films with high surface hardness and good scratch resistance for displays)

L34 ANSWER 37 OF 66 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2003:532225 HCAPLUS
DOCUMENT NUMBER: 139:108702
TITLE: Process for producing an image using a first minimum bottom antireflective coating composition
INVENTOR(S): Neisser, Mark O.; Oberlander, Joseph E.; Toukhy, Medhat A.; Sakamuri, Raj; Ding-Lee, Shuji
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 15 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

US 2003129547 A1 20030710 US 2002-42878
2002
0109
WO 2003058348 A1 20030717 WO 2003-EP23
2003
0103
W: CN, JP, KR, SG
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR,
HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR
EP 1466216 A1 20041013 EP 2003-704352
2003
0103
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE,
MC, PT, IE, SI, FI, CY, TR, BG, CZ, EE, HU, SK
JP 2005526988 T2 20050908 JP 2003-558599
2003
0103
PRIORITY APPLN. INFO.: US 2002-42878 A
2002
0109
WO 2003-EP23 W
2003
0103

AB Disclosed is a process for forming an image on a substrate, comprising the steps of: (a) coating on the substrate a first layer of a radiation sensitive, antireflective composition; (b) coating a second layer of a photoresist composition onto the first layer of the antireflective composition; (c) selectively exposing the coated substrate from step (b) to actinic radiation; and (d) developing the exposed coated substrate from step (c) to form an image; wherein both the photoresist composition and the antireflective composition are exposed in step (c); both are developed in step (d) using a single developer; wherein the antireflective composition of step (a) is a first min. bottom antireflective coating (B.A.R.C.) composition, having a solids content of up to about 8% solids, and a maximum coating thickness of the coated substrate of λ/2n (λ = wavelength of the actinic radiation of step (c) and n is the refractive index of the B.A.R.C. compn).

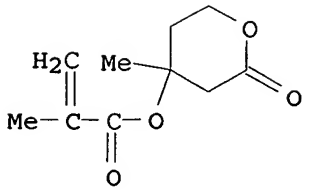
IT **552888-70-7P**
(process for producing image using first min. bottom **antireflective coating** composition)

RN 552888-70-7 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, phenylmethyl ester, polymer with tetrahydro-4-methyl-2-oxo-2H-pyran-4-yl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

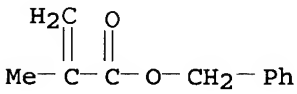
CM 1

CRN 177080-66-9
CMF C10 H14 O4



CM 2

CRN 2495-37-6
CMF C11 H12 O2



IC ICM G03F007-00
INCL 430322000; 430950000; 430312000
CC 74-5 (Radiation Chemistry, Photochemistry, and **Photographic** and Other Reprographic Processes)
Section cross-reference(s): 35, 38
IT 552888-69-4P **552888-70-7P**
(process for producing image using first min. bottom **antireflective coating** composition)

L34 ANSWER 38 OF 66 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2003:532217 HCAPLUS
DOCUMENT NUMBER: 139:92770
TITLE: Positive-working photoimageable bottom antireflective coating
INVENTOR(S): Oberlander, Joseph E.; Dammel, Ralph R.; Ding-Lee, Shuji; Neisser, Mark O.; Toukhy, Medhat A.
PATENT ASSIGNEE(S): Clariant Finance (BVI) Limited, USA
SOURCE: U.S. Pat. Appl. Publ., 12 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003129531	A1	20030710	US 2002-42532	2002 0109
US 6844131	B2	20050118		
WO 2003057678	A1	20030717	WO 2003-EP22	2003 0103
WO 2003057678	C1	20041229		

W: CN, JP, KR, SG
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR,

HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR
EP 1465877 A1 20041013 EP 2003-706347
2003
0103
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, CY, TR, BG, CZ, EE, HU, SK
JP 2005517972 T2 20050616 JP 2003-557995
2003
0103
PRIORITY APPLN. INFO.: US 2002-42532 A
2002
0109
WO 2003-EP22 W
2003
0103

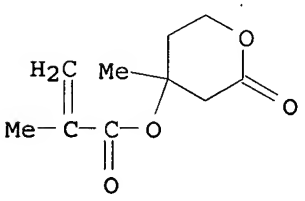
AB The present invention relates to a novel absorbing, photoimageable and aqueous developable pos.-working antireflective coating composition comprising a photoacid generator and a polymer comprising containing acid labile groups and absorbing chromophores. The invention also relates to a novel process for forming a pos. image with a pos. photoresist and a novel photoimageable and aqueous developable pos.-working antireflective coating composition

IT **181020-28-0P 552888-68-3P 552888-70-7P**
(pos.-working photoimageable bottom **antireflective coating**)

RN 181020-28-0 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, tetrahydro-4-methyl-2-oxo-2H-pyran-4-yl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

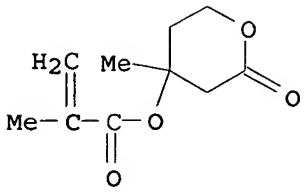
CRN 177080-66-9
CMF C10 H14 O4



RN 552888-68-3 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, tetrahydro-4-methyl-2-oxo-2H-pyran-4-yl ester, polymer with ethenylbenzene (9CI) (CA INDEX NAME)

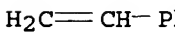
CM 1

CRN 177080-66-9
CMF C10 H14 O4



CM 2

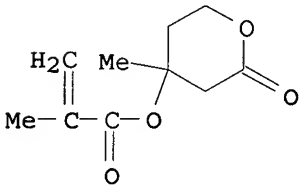
CRN 100-42-5
CMF C8 H8



RN 552888-70-7 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, phenylmethyl ester, polymer with tetrahydro-4-methyl-2-oxo-2H-pyran-4-yl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

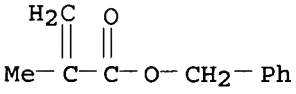
CM 1

CRN 177080-66-9
CMF C10 H14 O4



CM 2

CRN 2495-37-6
CMF C11 H12 O2



IC ICM G03C001-76
INCL 430271100; 430326000
CC 74-5 (Radiation Chemistry, Photochemistry, and **Photographic** and Other Reprographic Processes)
IT **181020-28-0P** 552888-66-1P **552888-68-3P** 552888-69-4P **552888-70-7P**
(pos.-working photoimageable bottom **antireflective coating**)

REFERENCE COUNT: 62 THERE ARE 62 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L34 ANSWER 39 OF 66 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:975787 HCAPLUS
DOCUMENT NUMBER: 138:47428
TITLE: Antireflective compositions with good transparency and storage stability, films having their coating layers, and displays
INVENTOR(S): Shinohara, Seiji; Shiota, Satoshi
PATENT ASSIGNEE(S): Dai Nippon Printing Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 12 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002371236	A2	20021226	JP 2001-179746	2001 0614

PRIORITY APPLN. INFO.: JP 2001-179746 2001 0614

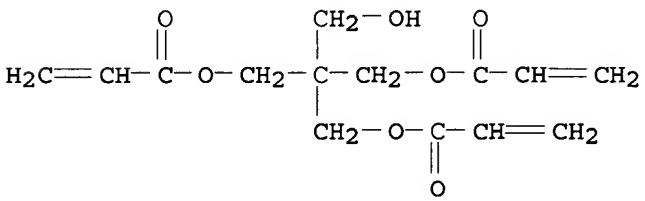
AB The compns. comprise (A) metal oxide microparticles with primary particle diameter 0.01-0.1 μm, (B) radiation-curable binders, (C) dispersants having anionic groups, (D) organic solvents, and (E) Zn chelates. Photocatalysis of the metal oxides is eliminated by the Zn chelates to prevent photolytic degradation of the coating layers. The metal oxide particles are uniformly dispersed in the compns. to prevent haze increase.

IT **27775-58-2P**, PET 30 homopolymer
(binder; UV-curable **coatings** containing metal oxides with good transparency and storage stability for **antireflective** films of displays)

RN 27775-58-2 HCAPLUS
CN 2-Propenoic acid, 2-(hydroxymethyl)-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 3524-68-3
CMF C14 H18 O7



IC ICM C09D201-00
ICS B32B007-02; B32B027-00; B32B027-18; C08F002-44; C08F002-50; C09C001-00; C09C003-08; C09D004-00; C09D005-00; C09D007-12; C09D171-00; C09D201-02; G02B001-11; G09F009-00
CC 74-13 (Radiation Chemistry, Photochemistry, and **Photographic** and Other Reprographic Processes)
IT **27775-58-2P**, PET 30 homopolymer
(binder; UV-curable **coatings** containing metal oxides with good transparency and storage stability for **antireflective** films of displays)

L34 ANSWER 40 OF 66 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:830069 HCAPLUS
DOCUMENT NUMBER: 137:343952
TITLE: Silica/silicate composite coatings having low refractive indexes and their use in antireflection films having good resistances to abrasion and fingerprints
INVENTOR(S): Ohata, Koichi; Yoshihara, Toshiaki
PATENT ASSIGNEE(S): Toppan Printing Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

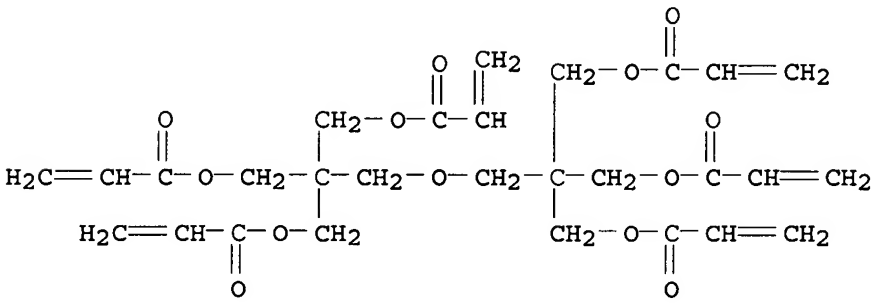
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002317152	A2	20021031	JP 2001-231141	2001 0731
PRIORITY APPLN. INFO.:			JP 2001-39558 A	2001 0216

AB The coatings contain hollow SiO2 microspheres with average particle diameter 0.5-200 nm and refractive index 1.44-1.34 in matrixes comprising copolymers of a composition-A containing Si(OR)4 (R = alkyl) or their polymers, a composition-B containing R'm(OR)4-m (R' = F-containing substituent; R = alkyl; m = substituent number), and optionally a composition-C containing R''nSi(OR)4-n (R'' = substituent bearing ≥1 functional groups selected from vinyl, amino, epoxy, Cl, methacryloxy, acryloxy, NCO, etc.; R = alkyl, n = substituent number). The coatings are applied on transparent substrates to form low-refractive index layers of antireflection films. Preferably, hard coat layers are disposed between the substrates and the low-refractive index layers. More preferably, the hard coat layers comprise polymers based on polyfunctional monomers bearing (meth)acryloyloxy groups. The hard coat layers will be surface-treated, preferably with alkalis, on the faces the low-refractive index layers will be disposed thereon.
IT **102772-00-9P**, Dipentaerythritol hexaacrylate-pentaerythritol tetraacrylate copolymer
(hard **coat**; low-refractive index SiO2/silicate composite **coatings** for abrasion- and fingerprint-resistant **antireflection** films)
RN 102772-00-9 HCAPLUS
CN 2-Propenoic acid, 2,2-bis[[(1-oxo-2-propenyl)oxy]methyl]-1,3-

propanediyl ester, polymer with 2-[[3-[(1-oxo-2-propenyl)oxy]-2,2-bis[[(1-oxo-2-propenyl)oxy]methyl]propoxy]methyl]-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl di-2-propenoate (9CI) (CA INDEX NAME)

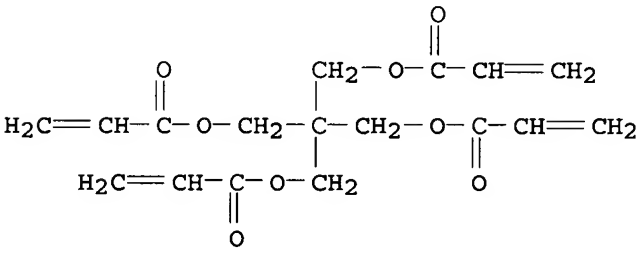
CM 1

CRN 29570-58-9
CMF C28 H34 O13



CM 2

CRN 4986-89-4
CMF C17 H20 O8



IC ICM C09D183-02
ICS C09D005-00; C09D183-06; C09D183-08; H04N005-72
CC 74-13 (Radiation Chemistry, Photochemistry, and **Photographic** and Other Reprographic Processes)
IT **102772-00-9P**, Dipentaerythritol hexaacrylate-pentaerythritol tetraacrylate copolymer
(hard **coat**; low-refractive index SiO2/silicate composite **coatings** for abrasion- and fingerprint-resistant **antireflection** films)

L34 ANSWER 41 OF 66 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:672027 HCAPLUS
DOCUMENT NUMBER: 137:208375
TITLE: Bottom antireflective coat forming composition for photolithography
INVENTOR(S): Arase, Shinya; Kishioka, Takahiro; Mizusawa, Ken-ichi
PATENT ASSIGNEE(S): Nissan Chemical Industries, Ltd., Japan

SOURCE: Eur. Pat. Appl., 13 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1237042	A2	20020904	EP 2002-3280	20020222
EP 1237042	A3	20030903		
EP 1237042	B1	20051109		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
US 2002156148	A1	20021024	US 2002-78108	20020220
US 6927266	B2	20050809		
JP 2002323771	A2	20021108	JP 2002-44664	20020221
TW 563001	B	20031121	TW 2002-91103186	20020222

PRIORITY APPLN. INFO.: JP 2001-46779 A 20010222

AB The present invention relates to a bottom antireflective coat forming composition having the resin with the structural unit comprising maleimide or maleimide derivative for the lithog. process in the preparation of semiconductor device. The resin comprises maleimide or derivative in the principal chain or the side chain and its weight-average mol. weight is 700-1,000,000. The invention offers the bottom antireflective coating for lithog. showing high antireflective effect, no intermixing with resist layer, excellent resist pattern, and large dry etching rate in comparison to resist.

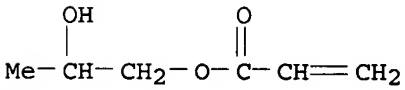
IT **452914-09-9P 452914-10-2P 452914-11-3P**
452914-12-4P 452914-13-5P
(bottom **antireflective coat** forming composition for photolithog. containing)

RN 452914-09-9 HCAPLUS

CN 2-Propenoic acid, 2-hydroxypropyl ester, polymer with 1-methyl-1H-pyrrole-2,5-dione (9CI) (CA INDEX NAME)

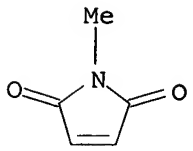
CM 1

CRN 999-61-1
CMF C6 H10 O3



CM 2

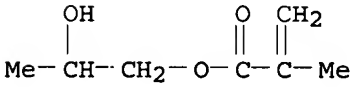
CRN 930-88-1
CMF C5 H5 N O2



RN 452914-10-2 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 2-hydroxypropyl ester, polymer with 1-ethyl-1H-pyrrole-2,5-dione (9CI) (CA INDEX NAME)

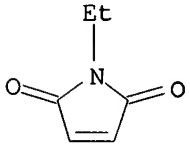
CM 1

CRN 923-26-2
CMF C7 H12 O3



CM 2

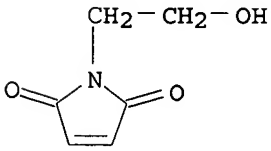
CRN 128-53-0
CMF C6 H7 N O2



RN 452914-11-3 HCAPLUS
CN 2-Propenoic acid, 2-hydroxypropyl ester, polymer with 1-(2-hydroxyethyl)-1H-pyrrole-2,5-dione (9CI) (CA INDEX NAME)

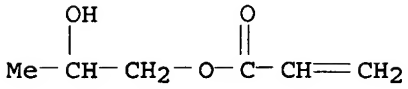
CM 1

CRN 1585-90-6
CMF C6 H7 N O3



CM 2

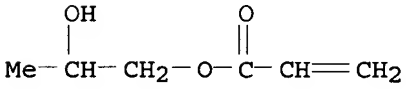
CRN 999-61-1
CMF C6 H10 O3



RN 452914-12-4 HCAPLUS
CN 2-Propenoic acid, 2-hydroxypropyl ester, polymer with 1-phenyl-1H-pyrrole-2,5-dione (9CI) (CA INDEX NAME)

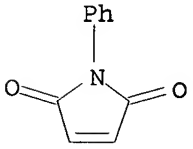
CM 1

CRN 999-61-1
CMF C6 H10 O3



CM 2

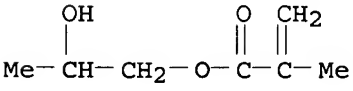
CRN 941-69-5
CMF C10 H7 N O2



RN 452914-13-5 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 2-hydroxypropyl ester, polymer with 1H-pyrrole-2,5-dione (9CI) (CA INDEX NAME)

CM 1

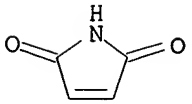
CRN 923-26-2
CMF C7 H12 O3



CM 2

CRN 541-59-3

CMF C4 H3 N O2



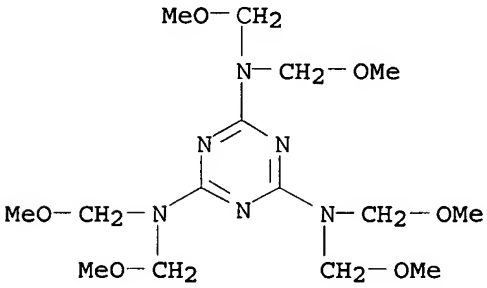
IT **452914-14-6P 452914-15-7P 452914-16-8P**
452914-17-9P 452914-18-0P
(bottom **antireflective coat** forming composition
for photolithog. containing)

RN 452914-14-6 HCAPLUS

CN 2-Propenoic acid, 2-hydroxypropyl ester, polymer with N,N,N',N',N'',N''-hexakis(methoxymethyl)-1,3,5-triazine-2,4,6-triamine and 1-methyl-1H-pyrrole-2,5-dione (9CI) (CA INDEX NAME)

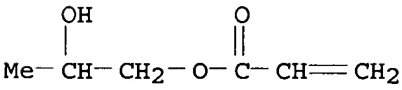
CM 1

CRN 3089-11-0
CMF C15 H30 N6 O6



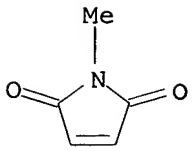
CM 2

CRN 999-61-1
CMF C6 H10 O3



CM 3

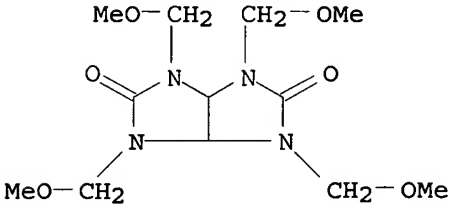
CRN 930-88-1
CMF C5 H5 N O2



RN 452914-15-7 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 2-hydroxypropyl ester, polymer with 1-ethyl-1H-pyrrole-2,5-dione and tetrahydro-1,3,4,6-tetrakis(methoxymethyl)imidazo[4,5-d]imidazole-2,5(1H,3H)-dione (9CI) (CA INDEX NAME)

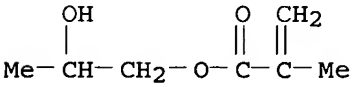
CM 1

CRN 17464-88-9
CMF C12 H22 N4 O6



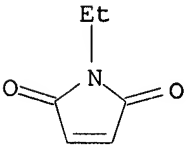
CM 2

CRN 923-26-2
CMF C7 H12 O3



CM 3

CRN 128-53-0
CMF C6 H7 N O2

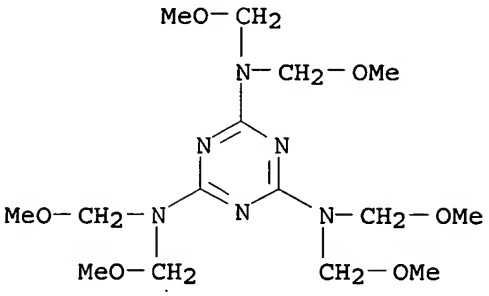


RN 452914-16-8 HCAPLUS
CN 2-Propenoic acid, 2-hydroxypropyl ester, polymer with N,N,N',N',N'',N''-hexakis(methoxymethyl)-1,3,5-triazine-2,4,6-triamine and 1-(2-hydroxyethyl)-1H-pyrrole-2,5-dione (9CI) (CA

INDEX NAME)

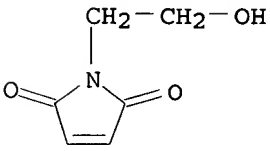
CM 1

CRN 3089-11-0
CMF C15 H30 N6 O6



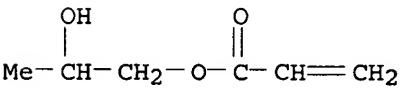
CM 2

CRN 1585-90-6
CMF C6 H7 N O3



CM 3

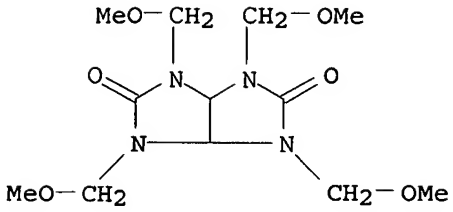
CRN 999-61-1
CMF C6 H10 O3



RN 452914-17-9 HCAPLUS
CN 2-Propenoic acid, 2-hydroxypropyl ester, polymer with 1-phenyl-1H-pyrrole-2,5-dione and tetrahydro-1,3,4,6-tetrakis(methoxymethyl)imidazo[4,5-d]imidazole-2,5(1H,3H)-dione (9CI) (CA INDEX NAME)

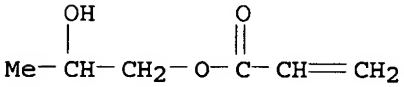
CM 1

CRN 17464-88-9
CMF C12 H22 N4 O6



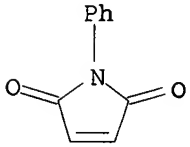
CM 2

CRN 999-61-1
CMF C6 H10 O3



CM 3

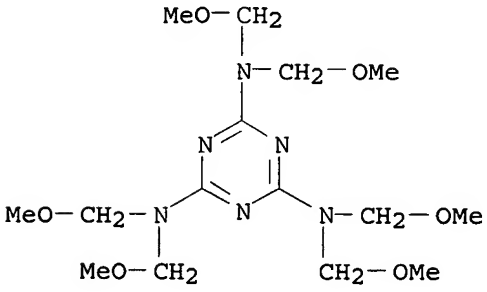
CRN 941-69-5
CMF C10 H7 N O2



RN 452914-18-0 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 2-hydroxypropyl ester, polymer with N,N,N',N',N'',N''-hexakis(methoxymethyl)-1,3,5-triazine-2,4,6-triamine and 1H-pyrrole-2,5-dione (9CI) (CA INDEX NAME)

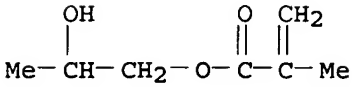
CM 1

CRN 3089-11-0
CMF C15 H30 N6 O6



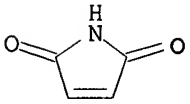
CM 2

CRN 923-26-2
CMF C7 H12 O3



CM 3

CRN 541-59-3
CMF C4 H3 N O2



IC ICM G03F007-09
CC 74-5 (Radiation Chemistry, Photochemistry, and **Photographic** and Other Reprographic Processes)
Section cross-reference(s): 76
IT 37348-54-2P, Araldite ECN 1299 **452914-09-9P** **452914-10-2P** **452914-11-3P** **452914-12-4P** **452914-13-5P** 452929-67-8P
(bottom **antireflective coat** forming composition for photolithog. containing)
IT **452914-14-6P** **452914-15-7P** **452914-16-8P** **452914-17-9P** **452914-18-0P**
(bottom **antireflective coat** forming composition for photolithog. containing)

L34 ANSWER 42 OF 66 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:439139 HCAPLUS
DOCUMENT NUMBER: 137:26196
TITLE: High-refractive-index electroconductive coating compositions, transparent electroconductive materials, and antireflection materials for displays
INVENTOR(S): Morimoto, Yoshihiro
PATENT ASSIGNEE(S): NOF Corporation, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 11 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002167576	A2	20020611	JP 2000-368009	2000

1204

PRIORITY APPLN. INFO.: JP 2000-368009

2000
1204

AB The compns., especially useful for displays, construction materials, etc., contain electroconductive microparticles (In-Sn oxide, Sn oxide, Sb-Sn oxide, and/or Al-Zn oxide, preferably) 100, dielec. microparticles (Ti oxide, Ce oxide, and/or Zn oxide, preferably) with refractive index ≥2.0 5-100, and binders 5-100 parts. The compns. give antireflective layers with good antistaticity.

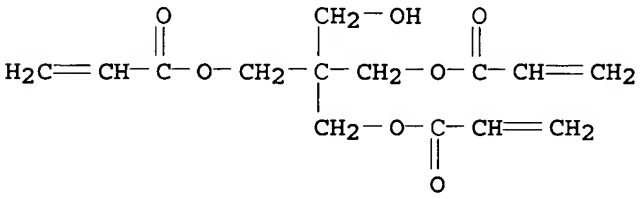
IT **27775-58-2P**, Tetramethylolmethane triacrylate homopolymer (binder; high-refractive-index elec. conductive **coating** compns. for transparent **antireflective** materials with good antistaticity)

RN 27775-58-2 HCAPLUS

CN 2-Propenoic acid, 2-(hydroxymethyl)-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 3524-68-3
CMF C14 H18 O7



IC ICM C09K003-16
ICS B05D005-06; B05D005-12; B32B007-02; B32B027-18; C09D004-00; C09D005-00; C09D005-24; C09D007-12; C09D201-00; C09K003-00; H01B001-20; H01B005-14

CC 74-13 (Radiation Chemistry, Photochemistry, and **Photographic** and Other Reprographic Processes)
Section cross-reference(s): 42, 73

IT **27775-58-2P**, Tetramethylolmethane triacrylate homopolymer (binder; high-refractive-index elec. conductive **coating** compns. for transparent **antireflective** materials with good antistaticity)

L34 ANSWER 43 OF 66 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:408349 HCAPLUS
DOCUMENT NUMBER: 136:409139
TITLE: Optical films with excellent antireflective and antiglare properties and polarizers and display devices containing them
INVENTOR(S): Nakamura, Kenichi
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 19 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002156508	A2	20020531	JP 2000-354381	2000 1121
PRIORITY APPLN. INFO.:			JP 2000-354381	2000 1121

AB The film with good abrasion and chemical resistance, especially useful for a liquid crystal display, has ≥1 polymer layer formed by curing and/or polymerizing a radiation-curable composition under an atmospheric containing ≤15 volume% O on a transparent substrate. The film may have an outermost layer formed by curing and/or polymerizing a fluoropolymer during or after applying it to the polymer layer.

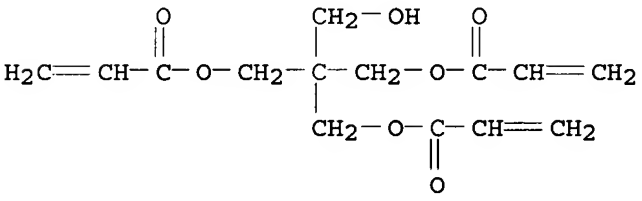
IT **27775-58-2P**, Tetramethylolmethane triacrylate homopolymer
(**coating** layer; **coated** optical films with good **antireflective** and antiglare properties for polarizers and display devices)

RN 27775-58-2 HCAPLUS

CN 2-Propenoic acid, 2-(hydroxymethyl)-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 3524-68-3
CMF C14 H18 O7



IC ICM G02B001-11
ICS B32B007-02; B32B023-08; B32B027-30; C08F002-00; C08F002-46; C08J007-04; G02B001-04; G02B001-10; G02B005-30; G02F001-1335; C08L001-12

CC 74-13 (Radiation Chemistry, Photochemistry, and **Photographic** and Other Reprographic Processes)
Section cross-reference(s): 38, 42, 73

IT **27775-58-2P**, Tetramethylolmethane triacrylate homopolymer
(**coating** layer; **coated** optical films with good **antireflective** and antiglare properties for polarizers and display devices)

L34 ANSWER 44 OF 66 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:345852 HCAPLUS
DOCUMENT NUMBER: 136:348412
TITLE: Antireflection film and display device having the same
INVENTOR(S): Nakamura, Kazuhiro; Yasuda, Tomokazu;

Nakamura, Taku
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: U.S., 16 pp., Cont.-in-part of U.S. Ser. No. 760,458, abandoned.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6383559	B1	20020507	US 1998-55250	1998 0406
JP 11006902	A2	19990112	JP 1998-110173	1998 0406
PRIORITY APPLN. INFO.:			JP 1995-318825 A	1995 1207
			JP 1996-34661 A	1996 0222
			US 1996-760458 B2	1996 1206
			JP 1997-86176 A	1997 0404

AB The present invention relates to an antireflection film suitable for lowering reflection of light on a displaying surface of a display device which comprises a low refractive index layer. The low refractive index layer comprises a polymer binder and micro particles. The micro particles are so deposited to superpose at least one micro particle on another micro particle, to form micro voids surrounded by the micro particles. The micro particles have a mean particle size of 5-200 nm. A display device provided with the antireflection film is also disclosed.

IT **254887-33-7P**, DPHA-UV-6300B copolymer
(hard **coating** layer; **antireflection** film for display device containing)

RN 254887-33-7 HCAPLUS

CN 2-Propenoic acid, ester with 2,2'-[oxybis(methylene)]bis[2-(hydroxymethyl)-1,3-propanediol], polymer with UV 6300B (9CI) (CA INDEX NAME)

CM 1

CRN 221353-35-1
CMF Unspecified
CCI PMS, MAN

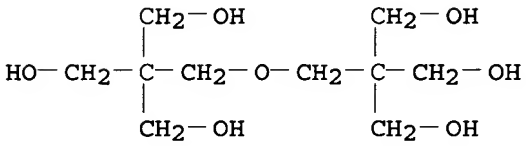
*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

CM 2

CRN 77641-99-7
CMF C10 H22 O7 . x C3 H4 O2

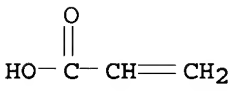
CM 3

CRN 126-58-9
CMF C10 H22 O7



CM 4

CRN 79-10-7
CMF C3 H4 O2



IC ICM B32B003-10
ICS B32B005-14; D06N007-04; B05D003-02; G02B027-00
INCL 427180000
CC 74-13 (Radiation Chemistry, Photochemistry, and **Photographic** and Other Reprographic Processes)
Section cross-reference(s): 35, 38, 42
IT **254887-33-7P**, DPHA-UV-6300B copolymer
(hard **coating** layer; **antireflection** film for display device containing)
REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L34 ANSWER 45 OF 66 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:261780 HCAPLUS
DOCUMENT NUMBER: 137:39241
TITLE: Anti-reflective polymer coatings in optical microlithography
AUTHOR(S): De, Binod; Malik, Sanjay; Dilocker, Stephanie; Spaziano, Gregory; Biafore, John; Bowden, Murrae
CORPORATE SOURCE: Photoresist Materials Research, Arch Chemicals Inc, East Providence, RI, 02914, USA
SOURCE: Journal of Macromolecular Science, Pure and Applied Chemistry (2002), A39(1 & 2), 1-16
CODEN: JSPCE6; ISSN: 1060-1325
PUBLISHER: Marcel Dekker, Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The use of polymers based on biphenyl methacrylate as

antireflective coatings (ARC) in lithog. applications is described. The optimum range of refractive index (n) and complex index (k) resulting in minimal reflectivity, as predicted by Prolith simulation, was 1.56 to 1.76 and 0.125 to 0.275, resp., which corresponded to polymers containing 50 to 70 mol% of biphenyl methacrylate. ARCs from these polymers were formulated with a melamine crosslinker and a thermally activated catalyst. Optimal lithog. performance was obtained by baking the spin-coated films at 200°Cfor 90 s for crosslinker concns. less than 7.5% as confirmed by lack of footing and scum at imaging layer/ARC interface.

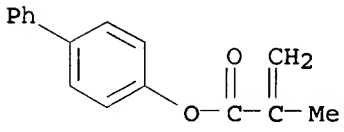
IT **436804-61-4P**
(**antireflective coatings** based on biphenyl methacrylate polymers for optical microlithog.)

RN 436804-61-4 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, [1,1'-biphenyl]-4-yl ester, polymer with 4-ethenylphenol and (1,3,5-triazine-2,4,6-triyltrinitrilo)hexakis[methanol] (9CI) (CA INDEX NAME)

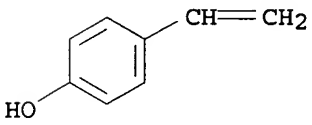
CM 1

CRN 46904-74-9
CMF C16 H14 O2



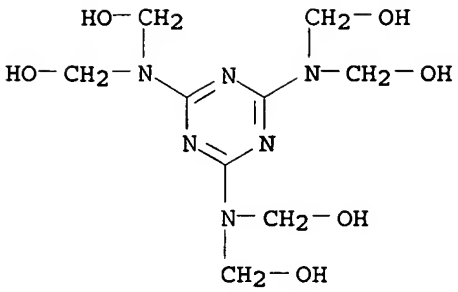
CM 2

CRN 2628-17-3
CMF C8 H8 O



CM 3

CRN 531-18-0
CMF C9 H18 N6 O6



CC 74-7 (Radiation Chemistry, Photochemistry, and **Photographic** and Other Reprographic Processes)
Section cross-reference(s): 42

IT **436804-61-4P**
(**antireflective coatings** based on biphenyl methacrylate polymers for optical microlithog.)

REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L34 ANSWER 46 OF 66 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2001:903472 HCAPLUS
DOCUMENT NUMBER: 136:29277
TITLE: Antireflective film, its manufacture, and display device using it
INVENTOR(S): Ikeyama, Akihiro; Nakamura, Kenichi
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 24 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001343505	A2	20011214	JP 2000-345125	2000 1113
PRIORITY APPLN. INFO.:			JP 2000-89474 A	2000 0328

AB The film is manufactured by removing impurities from a continuously fed transparent support, followed by successively applying and drying a layer with ≥0.05 higher refractive index than the substrate and a layer with ≥0.05 lower refractive index than the substrate on the substrate under clean condition satisfying class 10 (US Federal Standard 209E) to form high- and low-refractive-index layers. The film manufactured by the above method shows the number of bright point defect ≤20 counts/m3. The display device has the above antireflective films. The film shows low reflectance and few bright point defects and can be obtained continuous coating process to improve productivity.

IT **355023-96-0P**
(high-refractive-index layer containing; manufacture of

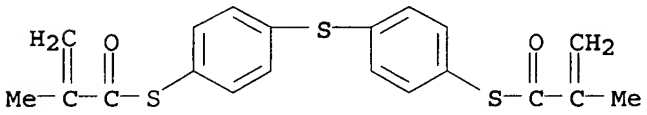
antireflective film for display by **coating** under clean condition)

RN 355023-96-0 HCAPLUS

CN 2-Propenoic acid, 2-[[3-hydroxy-2,2-bis[[(1-oxo-2-propenyl)oxy]methyl]propoxy]methyl]-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester, polymer with 2-[[3-[(1-oxo-2-propenyl)oxy]-2,2-bis[[(1-oxo-2-propenyl)oxy]methyl]propoxy]methyl]-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl di-2-propenoate and S,S'-(thiodi-4,1-phenylene) bis(2-methyl-2-propenethioate) (9CI) (CA INDEX NAME)

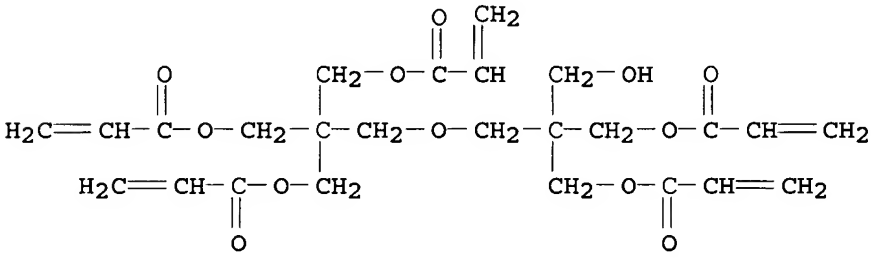
CM 1

CRN 129283-82-5
CMF C20 H18 O2 S3



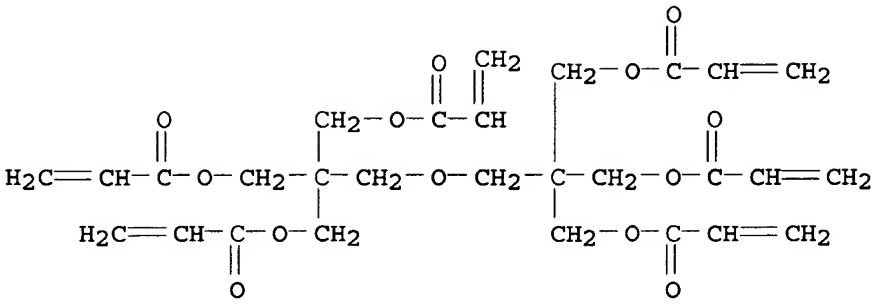
CM 2

CRN 60506-81-2
CMF C25 H32 O12



CM 3

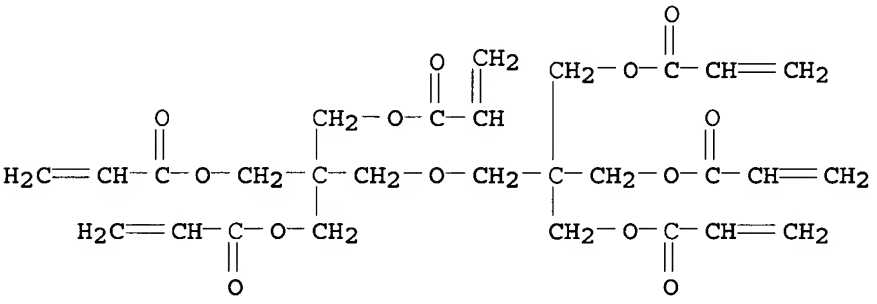
CRN 29570-58-9
CMF C28 H34 O13



IT **67653-78-5P**, DPHA homopolymer
(low-refractive-index layer containing; manufacture of **antireflective** film for display by **coating** under clean condition)
RN 67653-78-5 HCAPLUS
CN 2-Propenoic acid, 2-[[3-[(1-oxo-2-propenyl)oxy]-2,2-bis[[(1-oxo-2-propenyl)oxy]methyl]propoxy]methyl]-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 29570-58-9
CMF C28 H34 O13



IC ICM G02B001-11
ICS B29C041-12; B29C041-22; B32B007-02; G02B005-02; G02F001-1335; G09F009-00; B29K001-00; B29L011-00
CC 74-13 (Radiation Chemistry, Photochemistry, and **Photographic** and Other Reprographic Processes)
IT 254887-78-0P, DMAEA-DPHA-PM 21 copolymer **355023-96-0P**
(high-refractive-index layer containing; manufacture of **antireflective** film for display by **coating** under clean condition)
IT **67653-78-5P**, DPHA homopolymer
(low-refractive-index layer containing; manufacture of **antireflective** film for display by **coating** under clean condition)

L34 ANSWER 47 OF 66 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2001:703501 HCAPLUS
DOCUMENT NUMBER: 135:264649

TITLE: Curable fluorine-containing liquid coating, use of the coating, and manufacture of antireflection material
INVENTOR(S): Nojima, Takayuki; Morimoto, Yoshihiro; Ikeda, Tomoyuki
PATENT ASSIGNEE(S): NOF Corporation, Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 13 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001262011	A2	20010926	JP 2000-73447	2000 0316

PRIORITY APPLN. INFO.: JP 2000-73447 2000 0316

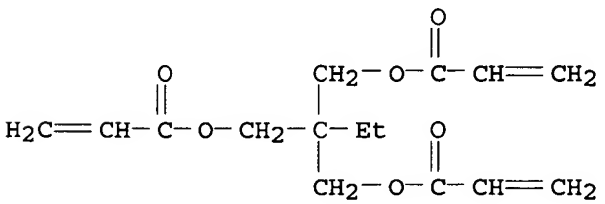
AB The liquid coating contains F-containing polyfunctional (meth)acrylate ester and colloidal silica modified with a (meth)acryloyloxy-substituted silane coupler or a F-containing silane coupler. The above composition is used as (a) a F-containing film obtained by polymerizing and curing of the above composition associated with a hardener, which shows pencil hardness larger than H and n ≤1.44 and (b) an antireflection film obtained by applying the composition containing a hardener onto ≥1 side of a substrate and curing. An antireflection material is manufactured by adding of a UV-sensitive hardener to the above composition, applying the mixture on a substrate. and curing of the composition by UV irradiation in an inert gas atmospheric An electrooptical display device using the antireflection material showing high hardness, i.e., wear resistance, is also claimed.

IT **36446-02-3P**, Trimethylolpropane triacrylate homopolymer
126095-71-4P, Dipentaerythritol hexaacrylate-polyethylene glycol diacrylate copolymer
(curable liquid **coating** for **antireflection** film for display surface associated with)

RN 36446-02-3 HCAPLUS
CN 2-Propenoic acid, 2-ethyl-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

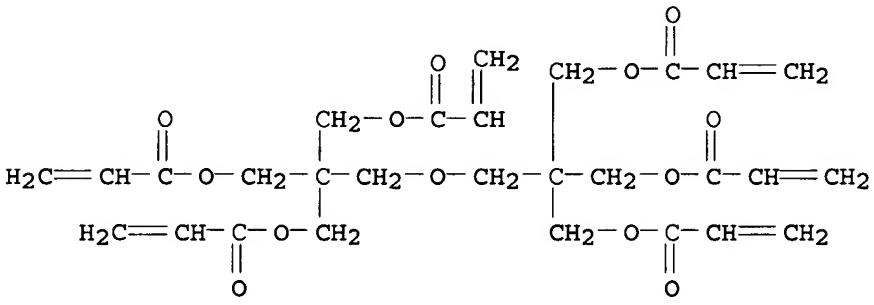
CRN 15625-89-5
CMF C15 H20 O6



RN 126095-71-4 HCAPLUS
CN 2-Propenoic acid, 2-[[3-[(1-oxo-2-propenyl)oxy]-2,2-bis[[(1-oxo-2-propenyl)oxy]methyl]propoxy]methyl]-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester, polymer with α-(1-oxo-2-propenyl)-ω-[(1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediyl) (9CI) (CA INDEX NAME)

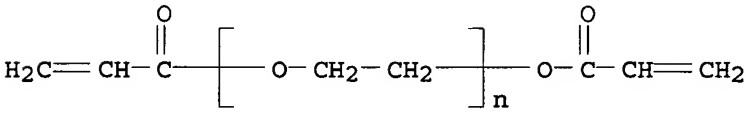
CM 1

CRN 29570-58-9
CMF C28 H34 O13



CM 2

CRN 26570-48-9
CMF (C2 H4 O)n C6 H6 O3
CCI PMS



IC ICM C09D004-02
ICS C08F002-44; C08F002-50; C08F020-22; C08J007-04; C09D005-32; G02B001-11; C08L001-12; C08L033-04; C08L067-02; C08L069-00
CC 74-13 (Radiation Chemistry, Photochemistry, and **Photographic** and Other Reprographic Processes)
Section cross-reference(s): 38, 42
IT **36446-02-3P**, Trimethylolpropane triacrylate homopolymer
126095-71-4P, Dipentaerythritol hexaacrylate-polyethylene glycol diacrylate copolymer
(curable liquid **coating** for **antireflection** film for display surface associated with)

L34 ANSWER 48 OF 66 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2001:265514 HCAPLUS
DOCUMENT NUMBER: 134:282128
TITLE: Production of polymeric azo dyes and their use in antireflective coatings
INVENTOR(S): Shan, Jianhui; Ding, Shuji; Gonzalez, Eleazar B.; Khanna, Dinish N.
PATENT ASSIGNEE(S): Clariant International Ltd., Switz.; Clariant

Finance (BVI) Limited
SOURCE: PCT Int. Appl., 36 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001025341	A1	20010412	WO 2000-EP9294	2000 0922
W: CN, JP, KR, SG RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 6346361	B1	20020212	US 1999-413181	1999 1006
TW 538101	B	20030621	TW 2000-89118959	2000 0915
EP 1222233	A1	20020717	EP 2000-969286	2000 0922
EP 1222233	B1	20051123		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY				
JP 2003511514	T2	20030325	JP 2001-528500	2000 0922
US 2002061473	A1	20020523	US 2001-8656	2001 1109

PRIORITY APPLN. INFO.: US 1999-413181 A 1999 1006
WO 2000-EP9294 W 2000 0922

AB A diazonium salt is coupled with a vinyl polymer employing the steps of providing a polymer in one liquid phase, providing a diazonium salt in a sep. liquid phase, contacting the sep. phases, and thereby reacting the polymer and the diazonium salt. The resulting azo dye is useful in antireflective coatings for photoresists. The extinction product of the azo-coupled polymer has an extinction coefficient which is not significantly affected by the agitation speed in the coupling reaction. An example was given in which Me methacrylate-p-hydroxystyrene copolymer was coupled with diazotized p-nitroaniline to give a red polymeric azo dye.

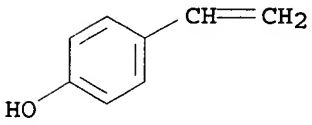
IT **24979-71-3DP**, Methyl methacrylate-p-hydroxystyrene copolymer, azo coupling products with diazotized aniline derivs.
27901-88-8DP, 2-(Methacryloyloxy)ethyl acetoacetate-methyl methacrylate copolymer, azo coupling products with diazotized aniline derivs.
(dyes; production of polymeric azo dyes and their use in

antireflective coatings)

RN 24979-71-3 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with 4-ethenylphenol (9CI) (CA INDEX NAME)

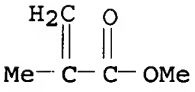
CM 1

CRN 2628-17-3
CMF C8 H8 O



CM 2

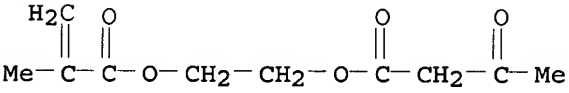
CRN 80-62-6
CMF C5 H8 O2



RN 27901-88-8 HCAPLUS
CN Butanoic acid, 3-oxo-, 2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl ester, polymer with methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

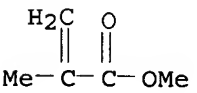
CM 1

CRN 21282-97-3
CMF C10 H14 O5



CM 2

CRN 80-62-6
CMF C5 H8 O2



IC ICM C09B069-10
ICS G03F007-09
CC 41-3 (Dyes, Organic Pigments, Fluorescent Brighteners, and

Photographic Sensitizers)
Section cross-reference(s): 37, 38, 74
IT 94-09-7DP, 4-Aminobenzoic acid ethyl ester, azo coupling products with vinyl polymers 100-01-6DP, 4-Nitroaniline, azo coupling products with vinyl polymers 122-80-5DP, azo coupling products with vinyl polymers 150-13-0DP, 4-Aminobenzoic acid, azo coupling products with vinyl polymers 24979-70-2DP, p-Hydroxystyrene homopolymer, azo coupling products with diazotized aniline derivs. **24979-71-3DP**, Methyl methacrylate-p-hydroxystyrene copolymer, azo coupling products with diazotized aniline derivs. **27901-88-8DP**, 2-(Methacryloyloxy)ethyl acetoacetate-methyl methacrylate copolymer, azo coupling products with diazotized aniline derivs.
(dyes; production of polymeric azo dyes and their use in **antireflective coatings**)
REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L34 ANSWER 49 OF 66 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2001:110149 HCAPLUS
DOCUMENT NUMBER: 134:155249
TITLE: Antireflective coating for photoresist compositions
INVENTOR(S): Ding, Shuji; Khanna, Dinesh N.; Spak, Mark A.; Durham, Dana L.; Shan, Jianhui; Gonzalez, Eleazer
PATENT ASSIGNEE(S): Clariant Finance (Bvi) Limited, Virgin I. (Brit.)
SOURCE: U.S., 11 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6187506	B1	20010213	US 1999-368740	19990805
WO 2001011429	A1	20010215	WO 2000-EP7228	20000727
W: CN, JP, KR, SG RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
EP 1210651	A1	20020605	EP 2000-948003	20000727
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY				
JP 2003506568	T2	20030218	JP 2001-516024	20000727

PRIORITY APPLN. INFO.: US 1999-368740 A 19990805

WO 2000-EP7228 W
2000
0727

AB The present invention relates to a novel antireflective coating solution and a process for its use in photolithog. The antireflective coating solution comprises a novel polymer and an organic solvent or mixture of solvents, where the novel polymer comprises a unit containing a dye that absorbs from .apprx.180 nm to .apprx.450 nm and does not contain a crosslinking group.

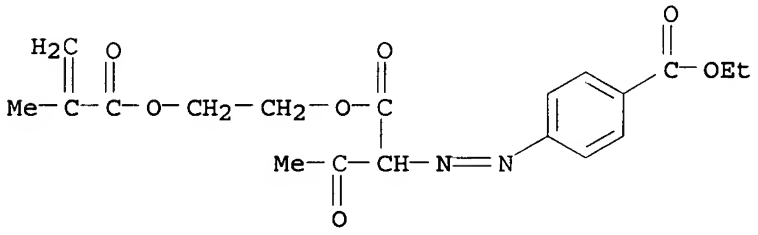
IT **323180-59-2P 323180-60-5P 323180-61-6P**
(**antireflective coating** for photoresist compns. for lithog. use)

RN 323180-59-2 HCAPLUS

CN Benzoic acid, 4-[[1-[[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethoxy]carbonyl]-2-oxopropyl]azo]-, ethyl ester, polymer with methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

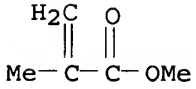
CM 1

CRN 205744-30-5
CMF C19 H22 N2 O7



CM 2

CRN 80-62-6
CMF C5 H8 O2

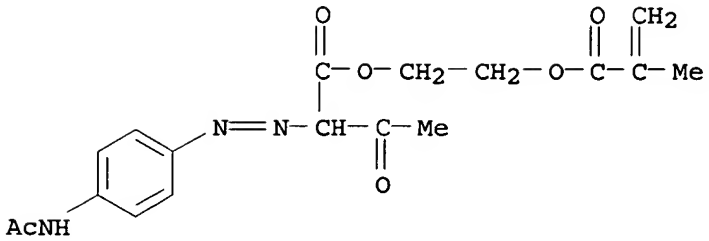


RN 323180-60-5 HCAPLUS

CN Butanoic acid, 2-[[4-(acetylamino)phenyl]azo]-3-oxo-, 2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

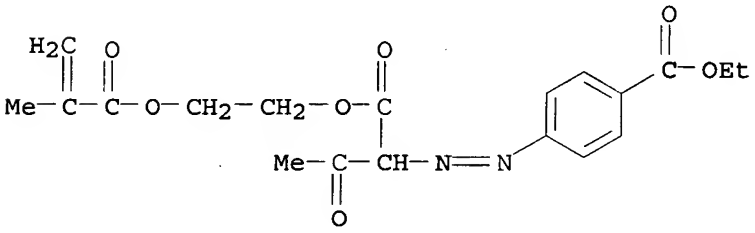
CRN 250608-64-1
CMF C18 H21 N3 O6



RN 323180-61-6 HCAPLUS
CN Benzoic acid, 4-[[1-[[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethoxy]carbonyl]-2-oxopropyl]azo]-, ethyl ester, polymer with 2,5-furandione and methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

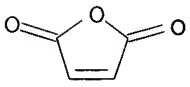
CM 1

CRN 205744-30-5
CMF C19 H22 N2 O7



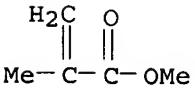
CM 2

CRN 108-31-6
CMF C4 H2 O3



CM 3

CRN 80-62-6
CMF C5 H8 O2



IC ICM G03C005-00
ICS C03F008-30

INCL 430271100
CC 74-5 (Radiation Chemistry, Photochemistry, and **Photographic** and Other Reprographic Processes)
IT 9003-08-1P, Cymel 303 **323180-59-2P 323180-60-5P 323180-61-6P**
(**antireflective coating** for photoresist compns. for lithog. use)
REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L34 ANSWER 50 OF 66 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2000:855677 HCAPLUS
DOCUMENT NUMBER: 134:23519
TITLE: Thermosetting anti-reflective coatings
INVENTOR(S): Meador, Jim D.; Nowak, Kelly A.; Xu, Gu
PATENT ASSIGNEE(S): Brewer Science, Inc., USA
SOURCE: U.S., 11 pp., Cont.-in-part of U.S. 5,919,599.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6156479	A	20001205	US 1999-273881	1999 0322
US 5919599	A	19990706	US 1997-940169	1997 0930
TW 483917	B	20020421	TW 1998-87116151	1998 0929
TW 477796	B	20020301	TW 2000-89101156	2000 0125
WO 2000057247	A1	20000928	WO 2000-US7463	2000 0321

W: CA, CN, JP, KR, SG
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE

PRIORITY APPLN. INFO.:		
US 1997-940169	A2	1997 0930
US 1999-273881	A	1999 0322

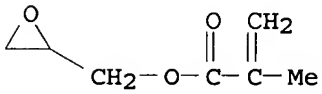
AB Anti-reflective coating compns. having improved etch rate, inter alia, are prepared from certain acrylic polymers and copolymers, such as, glycidyl methacrylate reacted with non-polycyclic carboxylic acid dyes and non-polycyclic phenolic dyes, all light absorbing at a wavelength of 193 nm.
IT **25067-05-4DP**, Poly(glycidyl methacrylate), reaction products with benzoic acid **86249-19-6DP**, Benzyl

methacrylate-glycidyl methacrylate copolymer, reaction products with 2,4-dinitrobenzoic acid **297748-18-6DP**, Glycidyl methacrylate-2-hydroxy-3-phenoxypropyl acrylate copolymer, reaction products with 3,5-dinitro-p-toluic acid (thermosetting **anti-reflective coatings** from dye-attached acrylic polymers)

RN 25067-05-4 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, oxiranylmethyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

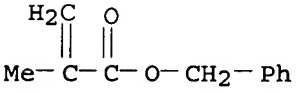
CRN 106-91-2
CMF C7 H10 O3



RN 86249-19-6 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, oxiranylmethyl ester, polymer with phenylmethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

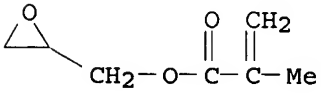
CM 1

CRN 2495-37-6
CMF C11 H12 O2



CM 2

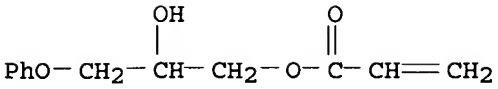
CRN 106-91-2
CMF C7 H10 O3



RN 297748-18-6 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, oxiranylmethyl ester, polymer with 2-hydroxy-3-phenoxypropyl 2-propenoate (9CI) (CA INDEX NAME)

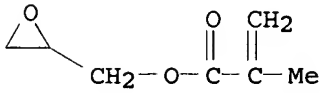
CM 1

CRN 16969-10-1
CMF C12 H14 O4



CM 2

CRN 106-91-2
CMF C7 H10 O3



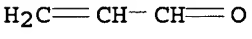
IC ICM G03F007-004
INCL 430270100
CC 74-5 (Radiation Chemistry, Photochemistry, and **Photographic** and Other Reprographic Processes)
Section cross-reference(s): 35, 38, 73
IT 62-23-7DP, 4-Nitrobenzoic acid, reaction products with poly(glycidyl methacrylate) 65-85-0DP, Benzoic acid, reaction products with poly(glycidyl methacrylate), preparation 99-34-3DP, 3,5-Dinitrobenzoic acid, reaction products with poly(glycidyl methacrylate) 108-95-2DP, Phenol, reaction products with poly(glycidyl methacrylate), preparation 140-10-3DP, trans-Cinnamic acid, reaction products with poly(glycidyl methacrylate) 527-72-0DP, 2-Thiophenecarboxylic acid, reaction products with poly(glycidyl methacrylate) 610-30-0DP, 2,4-Dinitrobenzoic acid, reaction products with poly(glycidyl methacrylate) 3724-65-0DP, Crotonic acid, reaction products with poly(glycidyl methacrylate) 16533-71-4DP, 3,5-Dinitro-p-toluic acid, reaction products with glycidyl methacrylate-2-hydroxy-3-phenoxypropla acrylate copolymer 16533-71-4DP, 3,5-Dinitro-p-toluic acid, reaction products with poly(glycidyl methacrylate) **25067-05-4DP**, Poly(glycidyl methacrylate), reaction products with benzoic acid **86249-19-6DP**, Benzyl methacrylate-glycidyl methacrylate copolymer, reaction products with 2,4-dinitrobenzoic acid **297748-18-6DP**, Glycidyl methacrylate-2-hydroxy-3-phenoxypropyl acrylate copolymer, reaction products with 3,5-dinitro-p-toluic acid
(thermosetting **anti-reflective coatings** from dye-attached acrylic polymers)
REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L34 ANSWER 51 OF 66 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2000:398662 HCAPLUS
DOCUMENT NUMBER: 133:157563
TITLE: A novel organic bottom antireflective coating material for 193 nm excimer laser lithography
AUTHOR(S): Hwang, S.-H.; Lee, K.-K.; Jung, J.-C.
CORPORATE SOURCE: Applied Polymer Materials Laboratory, Korea Institute of Industrial Technology (KITECH), Chonan, 330-820, S. Korea

SOURCE: Polymer (2000), 41(17), 6691-6694
CODEN: POLMAG; ISSN: 0032-3861
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Bottom antireflective coatings (BARC) are useful to suppress the problems associated with reflection by the substrate during the lithog. processing. The authors proposed a new class of BARC material containing poly(vinylphenol) as a UV-absorber, poly(3,3'-dimethoxypropene) (PDMP) as a crosslinker, and 2-hydroxycyclohexyl p-toluenesulfonate as a thermal acid generator. The PDMP was synthesized from acrolein by a two-step sequence reaction with a yield of 60%. The lithog. performance of photoresist with BARC that was proposed by the authors was evaluated and compared with those of photoresist without BARC.
IT **25068-14-8P**, Polyacrolein
(in synthesis of poly(3,3'-dimethoxypropene) for application in organic bottom **antireflective coating** for photolithog.)
RN 25068-14-8 HCAPLUS
CN 2-Propenal, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 107-02-8
CMF C3 H4 O



CC 74-5 (Radiation Chemistry, Photochemistry, and **Photographic** and Other Reprographic Processes)
IT **25068-14-8P**, Polyacrolein
(in synthesis of poly(3,3'-dimethoxypropene) for application in organic bottom **antireflective coating** for photolithog.)
REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L34 ANSWER 52 OF 66 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2000:260729 HCAPLUS
DOCUMENT NUMBER: 132:286426
TITLE: Antireflection material and polarizing film using same
INVENTOR(S): Murata, Chikara; Ohishi, Kazuya; Matsunaga, Yasuhiro; Yamamoto, Tomohisa
PATENT ASSIGNEE(S): Tomoegawa Paper Co., Ltd., Japan
SOURCE: PCT Int. Appl., 63 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000022461	A1	20000420	WO 1999-JP5668	

				1999 1014
W: KR, US				
JP 2000147208	A2	20000526	JP 1998-322604	1998 1112
JP 2000171603	A2	20000623	JP 1998-345420	1998 1204
JP 3503876	B2	20040308		
JP 2000187102	A2	20000704	JP 1999-286321	1999 1007
JP 3515447	B2	20040405		
TW 527492	B	20030411	TW 1999-88117773	1999 1014
TW 536638	B	20030611	TW 2002-91105600	1999 1014
TW 536639	B	20030611	TW 2002-91105601	1999 1014
US 6777070	B1	20040817	US 2000-581447	2000 0621
PRIORITY APPLN. INFO.:			JP 1998-291757 A	1998 1014
			JP 1998-322604 A	1998 1112
			JP 1998-345420 A	1998 1204
			JP 1999-286321 A	1999 1007
			WO 1999-JP5668 W	1999 1014

AB An antireflection material comprises a transparent substrate, a hard coating process layer which is provided, directly or via another layer, on one or both surfaces of the substrate, and an antireflection coating process which is provided on the surface of the hard coating process layer and has a refractive index lower than that of the hard coating process layer, wherein the hard coating process layer comprises (1) a polymer containing a (meth)acrylate compound having a fluorene skeleton as a component thereof, or (2) a polymer containing a urethane (meth)acrylate compound as a component thereof and ultra fine particles having a high refractive index, or (3) a radiation- and/or heat-curing resin and surface treated ultra fine particles of titanium dioxide; and a polarizing film using the same. The antireflection material and the polarizing film having the acrylate polymer in the hard coat

layer exhibit excellent antireflection properties and thus can be used for preventing an external light such as the sunshine and the light from a fluorescent lamp from reflecting into a display and providing a clear image free from screen glare or the like without lowering the contrast in an image, and further have good optical stability and excellent resistance to abrasion, chems. and stains.

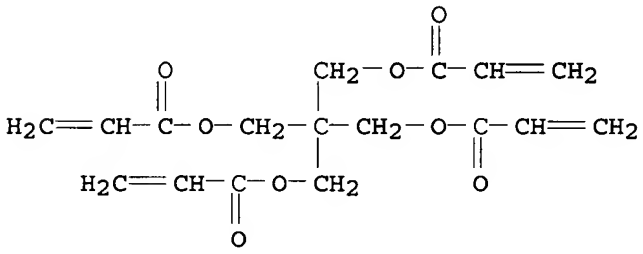
IT **111965-92-5P 253598-90-2P 253598-91-3P 253598-92-4P 253598-93-5P 263911-09-7P**
(acrylic polymer in hard **coat** layer of **antireflection** material)

RN 111965-92-5 HCAPLUS

CN 2-Propenoic acid, 2,2-bis[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester, polymer with 1,6-diisocyanatohexane and 2-(hydroxymethyl)-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl di-2-propenoate (9CI) (CA INDEX NAME)

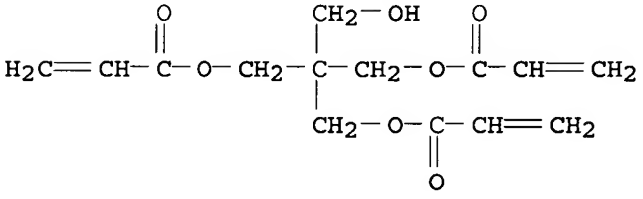
CM 1

CRN 4986-89-4
CMF C17 H20 O8



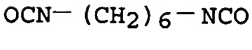
CM 2

CRN 3524-68-3
CMF C14 H18 O7



CM 3

CRN 822-06-0
CMF C8 H12 N2 O2

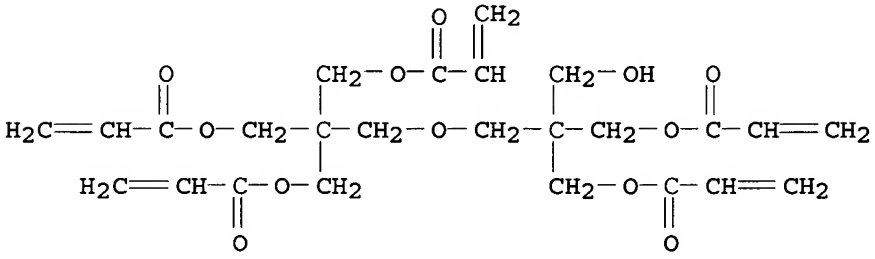


RN 253598-90-2 HCAPLUS

CN 2-Propenoic acid, 2-[[3-hydroxy-2,2-bis[[(1-oxo-2-propenyl)oxy]methyl]propoxy]methyl]-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester, polymer with 1,6-diisocyanatohexane and 2-[[3-[(1-oxo-2-propenyl)oxy]-2,2-bis[[(1-oxo-2-propenyl)oxy]methyl]propoxy]methyl]-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl di-2-propenoate (9CI) (CA INDEX NAME)

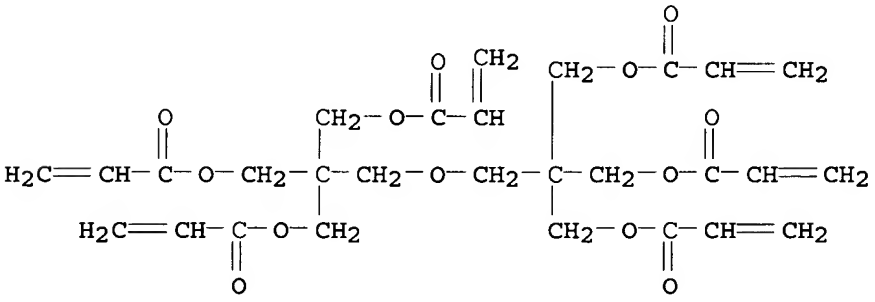
CM 1

CRN 60506-81-2
CMF C25 H32 O12



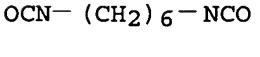
CM 2

CRN 29570-58-9
CMF C28 H34 O13



CM 3

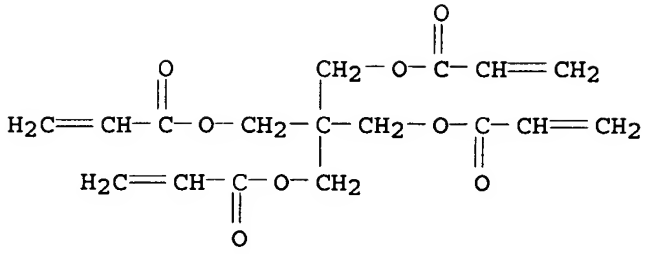
CRN 822-06-0
CMF C8 H12 N2 O2



RN 253598-91-3 HCAPLUS
CN 2-Propenoic acid, 2,2-bis[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester, polymer with 2,4-diisocyanato-1-methylbenzene and 2-(hydroxymethyl)-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl di-2-propenoate (9CI) (CA INDEX NAME)

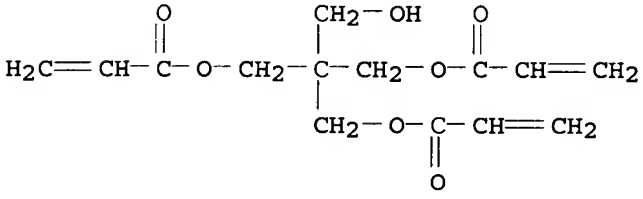
CM 1

CRN 4986-89-4
CMF C17 H20 O8



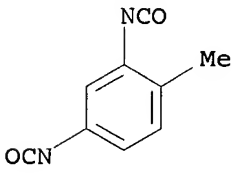
CM 2

CRN 3524-68-3
CMF C14 H18 O7



CM 3

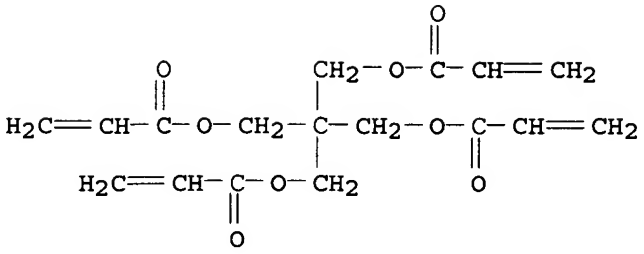
CRN 584-84-9
CMF C9 H6 N2 O2



RN 253598-92-4 HCAPLUS
CN 2-Propenoic acid, 2,2-bis[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester, polymer with 2-(hydroxymethyl)-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl di-2-propenoate and 1,1'-methylenebis[4-isocyanatobenzene] (9CI) (CA INDEX NAME)

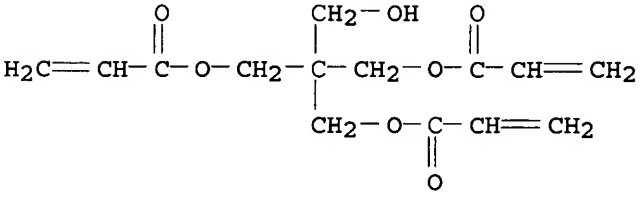
CM 1

CRN 4986-89-4
CMF C17 H20 O8



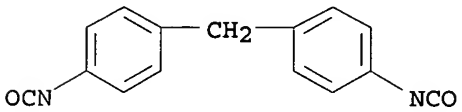
CM 2

CRN 3524-68-3
CMF C14 H18 O7



CM 3

CRN 101-68-8
CMF C15 H10 N2 O2



RN 253598-93-5 HCAPLUS
CN 2-Propenoic acid, 2,2-bis[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester, polymer with bis(isocyanatomethyl)benzene and 2-(hydroxymethyl)-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl di-2-propenoate (9CI) (CA INDEX NAME)

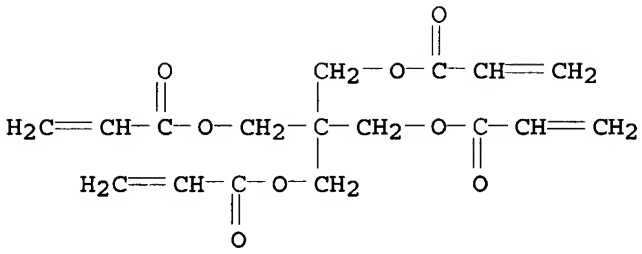
CM 1

CRN 25854-16-4
CMF C10 H8 N2 O2
CCI IDS

2 [D1—CH_2—NCO]

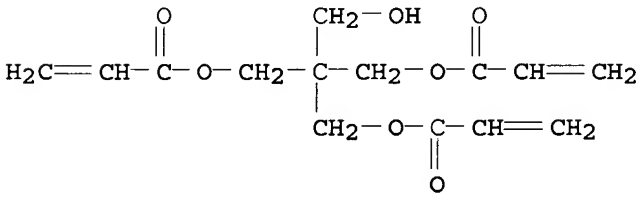
CM 2

CRN 4986-89-4
CMF C17 H20 O8



CM 3

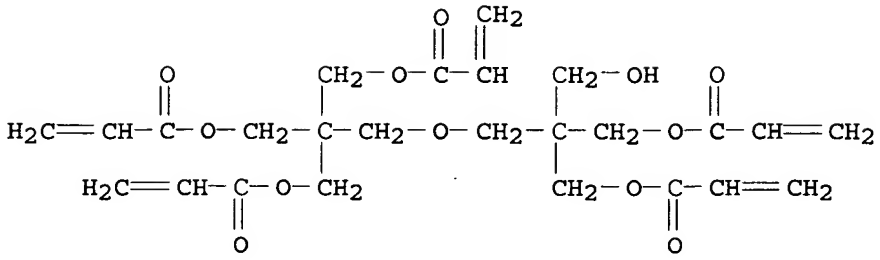
CRN 3524-68-3
CMF C14 H18 O7



RN 263911-09-7 HCAPLUS
CN 2-Propenoic acid, 2-[[3-hydroxy-2,2-bis[[(1-oxo-2-propenyl)oxy]methyl]propoxy]methyl]-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester, polymer with 5-isocyanato-1-(isocyanatomethyl)-1,3,3-trimethylcyclohexane and 2-[[3-[(1-oxo-2-propenyl)oxy]-2,2-bis[[(1-oxo-2-propenyl)oxy]methyl]propoxy]methyl]-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl di-2-propenoate (9CI) (CA INDEX NAME)

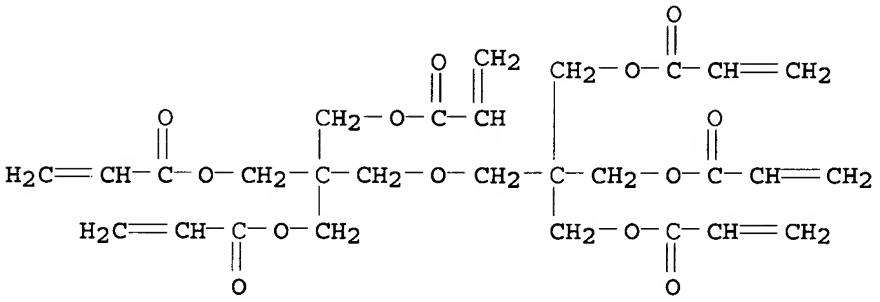
CM 1

CRN 60506-81-2
CMF C25 H32 O12



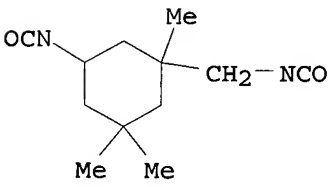
CM 2

CRN 29570-58-9
CMF C28 H34 O13



CM 3

CRN 4098-71-9
CMF C12 H18 N2 O2



IC ICM G02B001-11
ICS C09D133-06; C08F290-06; C08F220-30; C08F220-36
CC 74-13 (Radiation Chemistry, Photochemistry, and **Photographic** and Other Reprographic Processes)
Section cross-reference(s): 42
IT **111965-92-5P** 143182-97-2P 161182-73-6P **253598-90-2P** **253598-91-3P** **253598-92-4P** **253598-93-5P** 253598-96-8P 253598-97-9P **263911-09-7P**
(acrylic polymer in hard **coat** layer of **antireflection** material)

REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L34 ANSWER 53 OF 66 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2000:238401 HCAPLUS
DOCUMENT NUMBER: 132:271666
TITLE: Antireflective coatings comprising polymeric polyoxyalkylenated colorants for use with photoresists
INVENTOR(S): Bruhnke, John D.; Lever, John G.
PATENT ASSIGNEE(S): USA
SOURCE: U.S., 8 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6048662	A	20000411	US 1998-211355	1998 1215
PRIORITY APPLN. INFO.:			US 1998-211355	1998 1215

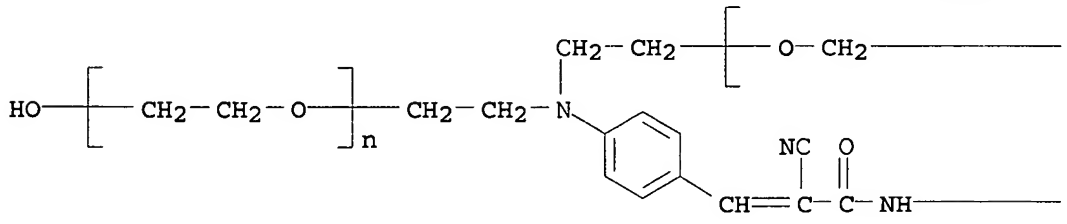
AB This invention relates to antireflective coatings comprising polymeric polyoxyalkylenated colorants. More particularly, the present invention relates to antireflective coatings for utilization in forming thin layers between reflective substrates and photoresists. Such antireflective coatings are very useful and beneficial in the production and fabrication of semiconductor devices by photolithog. procedures. The coatings may also be applied on lenses, mirrors, and other optical components. Methods of forming such antireflective coatings are also disclosed.

IT **137446-38-9P 263544-62-3P 263544-63-4P 263544-64-5P 263544-68-9P**
(preparation and use in preparing bottom **antireflective coatings** for photoresists)

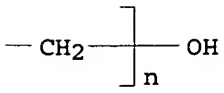
RN 137446-38-9 HCAPLUS

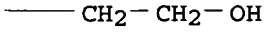
CN Poly(oxy-1,2-ethanediyl), α,α'-[[[4-[2-cyano-3-[(2-hydroxyethyl)amino]-3-oxo-1-propenyl]phenyl]imino]di-2,1-ethanediyl]bis[ω-hydroxy- (9CI) (CA INDEX NAME)

PAGE 1-A



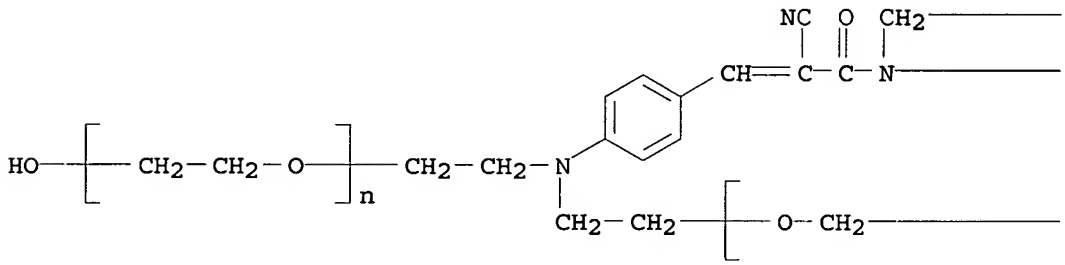
PAGE 1-B



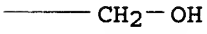


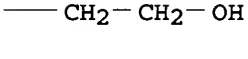
RN 263544-62-3 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), α,α'-[[[4-[3-[bis(2-hydroxyethyl)amino]-2-cyano-3-oxo-1-propenyl]phenyl]imino]di-2,1-ethanediyl]bis[ω-hydroxy- (9CI) (CA INDEX NAME)

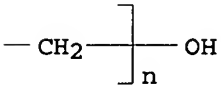
PAGE 1-A



PAGE 1-B

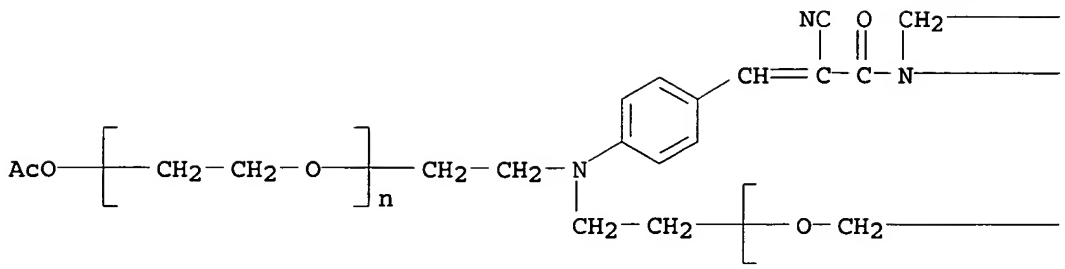




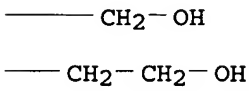


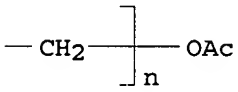
RN 263544-63-4 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), α,α'-[[[4-[3-[bis(2-hydroxyethyl)amino]-2-cyano-3-oxo-1-propenyl]phenyl]imino]di-2,1-ethanediyl]bis[ω-(acetyloxy)- (9CI) (CA INDEX NAME)

PAGE 1-A



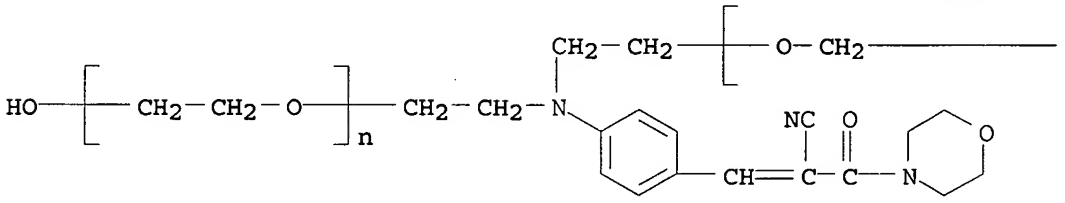
PAGE 1-B



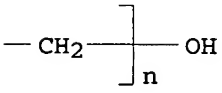


RN 263544-64-5 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), α,α'-[[[4-[2-cyano-3-(4-morpholinyl)-3-oxo-1-propenyl]phenyl]imino]di-2,1-ethanediyl]bis[ω-hydroxy- (9CI) (CA INDEX NAME)

PAGE 1-A

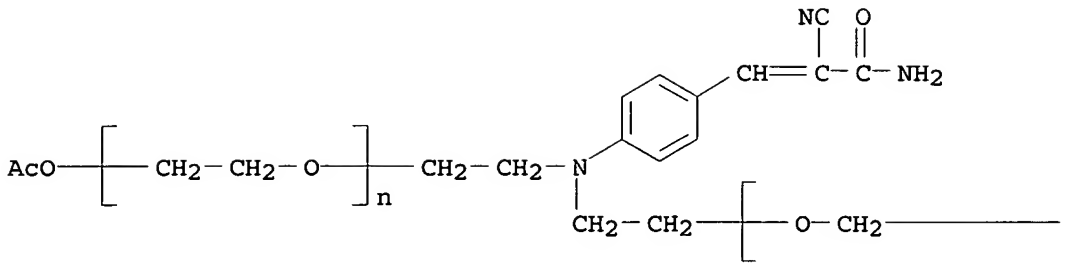


PAGE 1-B

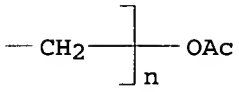


RN 263544-68-9 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), α,α'-[[[4-(3-amino-2-cyano-3-oxo-1-propenyl)phenyl]imino]di-2,1-ethanediyl]bis[ω-(acetyloxy)- (9CI) (CA INDEX NAME)

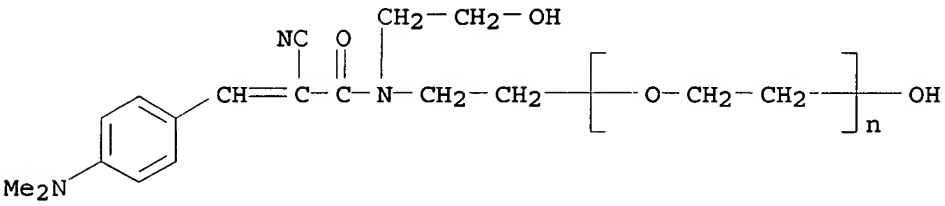
PAGE 1-A



PAGE 1-B



IT **263544-61-2P**
(reaction in preparing polymeric polyoxyalkylenated colorants for **antireflective coatings** for photoresists)
RN 263544-61-2 HCAPLUS
CN Poly(oxy-1,2-ethanediyl), α-[2-[[2-cyano-3-[4-(dimethylamino)phenyl]-1-oxo-2-propenyl](2-hydroxyethyl)amino]ethyl]-ω-hydroxy- (9CI) (CA INDEX NAME)



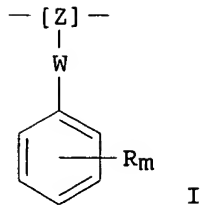
IC ICM G03C005-00
ICS G03C001-815
INCL 430270100
CC 74-5 (Radiation Chemistry, Photochemistry, and **Photographic** and Other Reprographic Processes)
Section cross-reference(s): 73
IT **137446-38-9P 263544-62-3P 263544-63-4P**
263544-64-5P 263544-65-6P 263544-66-7P 263544-67-8P
263544-68-9P
(preparation and use in preparing bottom **antireflective coatings** for photoresists)
IT **263544-61-2P**
(reaction in preparing polymeric polyoxyalkylenated colorants for **antireflective coatings** for photoresists)

REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L34 ANSWER 54 OF 66 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2000:190835 HCAPLUS
DOCUMENT NUMBER: 132:229510
TITLE: Antireflective coating for deep-UV photoresist layer
INVENTOR(S): Adams, Timothy G.; Pavelchek, Edward K.; Sinta, Roger F.; Docanto, Manuel; Blacksmith, Robert F.; Trefonas, Peter
PATENT ASSIGNEE(S): Shipley Company LLC, USA
SOURCE: Eur. Pat. Appl., 22 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 987600	A1	20000322	EP 1999-118332	1999 0915
EP 987600	B1	20031126		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
US 6410209	B2	20020625	US 1998-153575	1998 0915
US 2002102483	A1	20020801		
KR 2000023145	A	20000425	KR 1999-39327	1999 0914
JP 2000187331	A2	20000704	JP 1999-301489	1999 0916
HK 1026949	A1	20040604	HK 2000-106021	2000 0922
US 2002172896	A1	20021121	US 2002-126636	2002 0420
US 6602652	B2	20030805		
PRIORITY APPLN. INFO.:			US 1998-153575 A	1998 0915

GI



I

AB An antireflective coating for use with a deep-UV photoresist layer comprises a polymer represented by the general formula I (W = a chemical bond or an ester or alkyl group; R = H or an alkyl, alkoxy, ester, alkanoyl, aralkyl, or carbocyclic aryl group; m = an integer of 0-5; Z = a bridge group between polymer units) and effectively absorbing a reflected sub-200 nm radiation for exposing the photoresist layer.

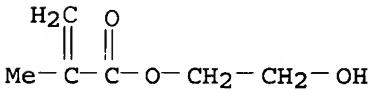
IT **26588-79-4P**, 2-Hydroxyethyl methacrylate-methyl methacrylate-styrene copolymer **261627-74-1P**, 4-Acetoxystyrene-2-hydroxyethyl methacrylate-methyl methacrylate copolymer **261627-75-2P**, 2-Hydroxyethyl methacrylate-methyl methacrylate-phenyl methacrylate copolymer **261627-76-3P**, Benzyl methacrylate-2-hydroxyethyl methacrylate-methyl methacrylate copolymer **261627-77-4P**
(preparation and use in preparing **antireflective coatings** for deep-UV photoresists)

RN 26588-79-4 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, polymer with ethenylbenzene and methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

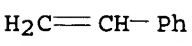
CM 1

CRN 868-77-9
CMF C6 H10 O3



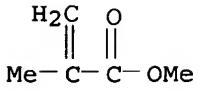
CM 2

CRN 100-42-5
CMF C8 H8



CM 3

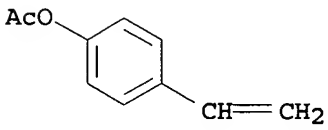
CRN 80-62-6
CMF C5 H8 O2



RN 261627-74-1 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, polymer with 4-ethenylphenyl acetate and methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

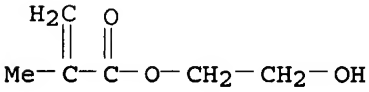
CM 1

CRN 2628-16-2
CMF C10 H10 O2



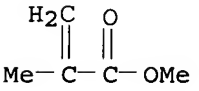
CM 2

CRN 868-77-9
CMF C6 H10 O3



CM 3

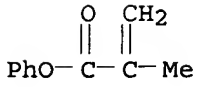
CRN 80-62-6
CMF C5 H8 O2



RN 261627-75-2 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, polymer with methyl 2-methyl-2-propenoate and phenyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

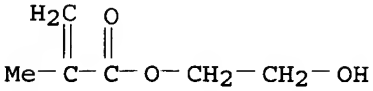
CM 1

CRN 2177-70-0
CMF C10 H10 O2



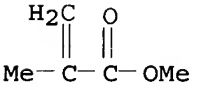
CM 2

CRN 868-77-9
CMF C6 H10 O3



CM 3

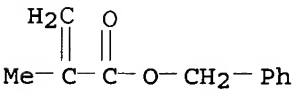
CRN 80-62-6
CMF C5 H8 O2



RN 261627-76-3 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, polymer with methyl 2-methyl-2-propenoate and phenylmethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

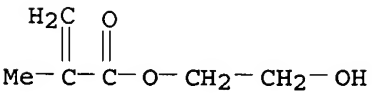
CM 1

CRN 2495-37-6
CMF C11 H12 O2



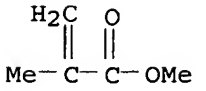
CM 2

CRN 868-77-9
CMF C6 H10 O3



CM 3

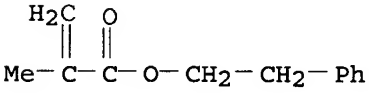
CRN 80-62-6
CMF C5 H8 O2



RN 261627-77-4 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, polymer with methyl 2-methyl-2-propenoate and 2-phenylethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

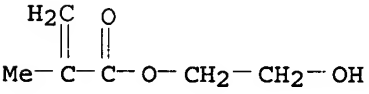
CM 1

CRN 3683-12-3
CMF C12 H14 O2



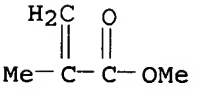
CM 2

CRN 868-77-9
CMF C6 H10 O3



CM 3

CRN 80-62-6
CMF C5 H8 O2



IC ICM G03F007-09
CC 74-5 (Radiation Chemistry, Photochemistry, and **Photographic** and Other Reprographic Processes)
Section cross-reference(s): 73
IT **26588-79-4P**, 2-Hydroxyethyl methacrylate-methyl methacrylate-styrene copolymer 32458-06-3P, Butyl methacrylate-2-hydroxyethyl methacrylate-methyl methacrylate-styrene copolymer **261627-74-1P**, 4-Acetoxystyrene-2-hydroxyethyl methacrylate-methyl methacrylate copolymer **261627-75-2P**, 2-Hydroxyethyl

methacrylate-methyl methacrylate-phenyl methacrylate copolymer **261627-76-3P**, Benzyl methacrylate-2-hydroxyethyl methacrylate-methyl methacrylate copolymer **261627-77-4P** (preparation and use in preparing **antireflective coatings** for deep-UV photoresists)

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L34 ANSWER 55 OF 66 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1999:545230 HCAPLUS
DOCUMENT NUMBER: 131:191872
TITLE: Surface antireflection coating material for photoresist
INVENTOR(S): Miyasawa, Yasuo; Yamaguchi, Tetsuhiko
PATENT ASSIGNEE(S): Showa Denko K. K., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11231545	A2	19990827	JP 1998-31420	1998 0213

PRIORITY APPLN. INFO.: JP 1998-31420 1998 0213

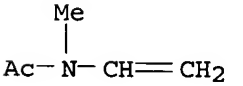
AB The title material contains a water-soluble N-vinylcarboxylic acid amide-type polymer having a repeating structural unit CH2CH(NR1COR2) (R1, R2 = H, Me, Et, Pr, iso-Pr) and a surfactant and the composition has a refractive index of 1.2-1.4. The composition is highly soluble in water and applicable to chemical amplified resists and shows low refractive index, high transparency, and improved thermal resistance.

IT **26616-03-5P**, Poly(N-vinyl-N-methylacetamide)
28408-65-3P, Poly(N-vinylacetamide)
(surface **antireflection coating** material containing vinyl polymer with amide group and surfactant for photoresist)

RN 26616-03-5 HCAPLUS
CN Acetamide, N-ethenyl-N-methyl-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 3195-78-6
CMF C5 H9 N O

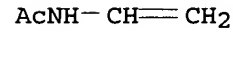


RN 28408-65-3 HCAPLUS

CN Acetamide, N-ethenyl-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 5202-78-8
CMF C4 H7 N O



IC ICM G03F007-11
ICS H01L021-027
CC 74-5 (Radiation Chemistry, Photochemistry, and **Photographic** and Other Reprographic Processes)
Section cross-reference(s): 38
IT **26616-03-5P**, Poly(N-vinyl-N-methylacetamide)
28408-65-3P, Poly(N-vinylacetamide)
(surface **antireflection coating** material containing vinyl polymer with amide group and surfactant for photoresist)

L34 ANSWER 56 OF 66 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1999:234089 HCAPLUS
DOCUMENT NUMBER: 130:259544
TITLE: Thermosetting antireflective coating for deep-UV photoresist
INVENTOR(S): Meador, Jim D.; Guerrero, Douglas J.; Shao, Xie; Krishnamurthy, Vandana
PATENT ASSIGNEE(S): Brewer Science, Inc., USA
SOURCE: PCT Int. Appl., 47 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9917161	A1	19990408	WO 1998-US20672	1998 0928
W: CA, CN, JP, KR, SG RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 5919599	A	19990706	US 1997-940169	1997 0930
CA 2301020	AA	19990408	CA 1998-2301020	1998 0928
EP 1023634	A1	20000802	EP 1998-952017	1998 0928
EP 1023634	B1	20050112		
R: AT, BE, CH, DE, ES, FR, GB, IT, LI, NL				
JP 2002502982	T2	20020129	JP 2000-514166	1998 0928

AT 287098	E	20050115	AT 1998-952017	1998 0928
TW 483917	B	20020421	TW 1998-87116151	1998 0929
PRIORITY APPLN. INFO.:			US 1997-940169	A 1997 0930
			WO 1998-US20672	W 1998 0928

AB A thermosetting antireflective coating for use with a deep-UV photoresist is prepared from a composition comprising (a) the reaction product of an acrylic polymer and a deep-UV-absorbing carboxylic acid or phenolic dye, (b) an alkylated aminoplast crosslinking agent such as melamine, urea, benzylguanamine, or glycoluril, (c) a protonic acid catalyst for curing, and (d) an alc.-containing solvent system.

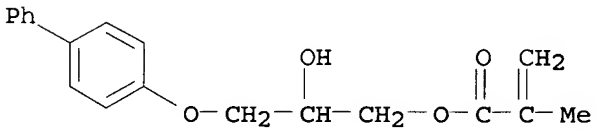
IT **221620-71-9P 221620-84-4P**
(preparation and use in preparing thermosetting compns. for forming underlaid **antireflective coatings** for UV photoresists)

RN 221620-71-9 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 3-([1,1'-biphenyl]-4-yloxy)-2-hydroxypropyl ester, polymer with 2-hydroxypropyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

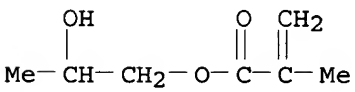
CM 1

CRN 130666-91-0
CMF C19 H20 O4



CM 2

CRN 923-26-2
CMF C7 H12 O3

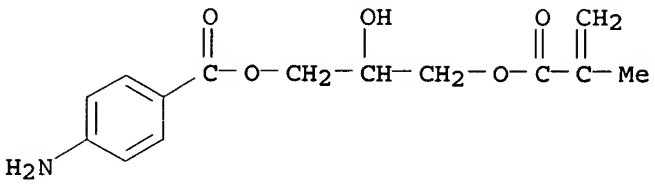


RN 221620-84-4 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 3-[(4-aminobenzoyl)oxy]-2-hydroxypropyl ester, polymer with 2-hydroxypropyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

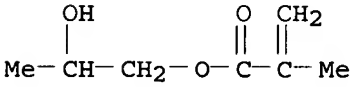
CM 1

CRN 221620-83-3
CMF C14 H17 N O5



CM 2

CRN 923-26-2
CMF C7 H12 O3



IC ICM G03C001-492
ICS G03C001-815
CC 74-5 (Radiation Chemistry, Photochemistry, and **Photographic** and Other Reprographic Processes)
IT **221620-71-9P** 221620-74-2P 221620-80-0P
221620-84-4P 221620-87-7P
(preparation and use in preparing thermosetting compns. for forming underlaid **antireflective coatings** for UV photoresists)
REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L34 ANSWER 57 OF 66 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1998:776573 HCAPLUS
DOCUMENT NUMBER: 130:160523
TITLE: Water-castable bottom antireflective coatings
AUTHOR(S): Lu, Ping-Hung; Mehtsun, Salem; Sagan, John; Dammel, Ralph; McCulloch, Iain; Kang, Ming; Tanaka, Hatsuyuki; Kimura, Ken
CORPORATE SOURCE: AZ Electronic Materials, Clariant Corporation, Somerville, NJ, 08876, USA
SOURCE: Proceedings of SPIE-The International Society for Optical Engineering (1998), 3333(Pt. 1, Advances in Resist Technology and Processing XV), 806-817
CODEN: PSISDG; ISSN: 0277-786X
PUBLISHER: SPIE-The International Society for Optical Engineering
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Bottom antireflective coatings (B.A.R.Cs) have been widely used in the industry to push i-line technol. to a finer resolution They have

been shown to be highly effective in suppressing reflective notching and standing wave effects, in the reduction of the resist swing ratio and the improvement of the resist process latitude. One of the issues which has to be addressed by the design of any such coating is the problem of resist/bottom coat intermixing. The formation of an intermixing layer is usually suppressed either by crosslinking the B.A.R.C., or by using a polymer that is insol. in the common resist casting solvents. This work describes a novel class of antireflective bottom coatings which are spin cast from the ultimate environmentally friendly solvent, water. The design requirements and philosophy of the water-borne polymer systems will be discussed. These polymers show high Ohnishi nos., and the prediction of high etch rates is borne out by dry etch expts. Polymer optical data have been obtained by UV spectroscopy and spectroscopic ellipsometry, and these optical and phys. properties will be reported and related to their lithog. performance which is found to be equivalent to that of existing solvent-based antireflective coatings.

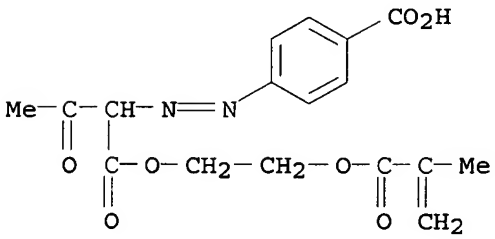
IT **220175-99-5P 220176-00-1P**
(water-castable bottom **antireflective coatings** (BARCs) in i-line photolithog.)

RN 220175-99-5 HCAPLUS

CN Benzoic acid, 4-[[1-[[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethoxy]carbonyl]-2-oxopropyl]azo]-, polymer with 2-hydroxyethyl 2-methyl-2-propenoate and N-(hydroxymethyl)-2-propenamide (9CI) (CA INDEX NAME)

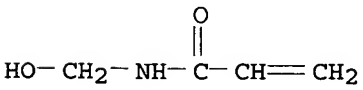
CM 1

CRN 205744-32-7
CMF C17 H18 N2 O7



CM 2

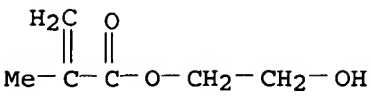
CRN 924-42-5
CMF C4 H7 N O2



CM 3

CRN 868-77-9

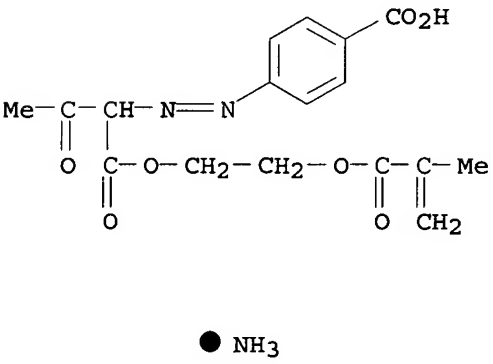
CMF C6 H10 O3



RN 220176-00-1 HCAPLUS
CN Benzoic acid, 4-[[1-[[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethoxy]carbonyl]-2-oxopropyl]azo]-, ammonium salt, polymer with N-(hydroxymethyl)-2-propenamide (9CI) (CA INDEX NAME)

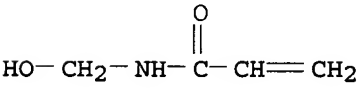
CM 1

CRN 220175-97-3
CMF C17 H18 N2 O7 . H3 N



CM 2

CRN 924-42-5
CMF C4 H7 N O2



CC 74-5 (Radiation Chemistry, Photochemistry, and **Photographic** and Other Reprographic Processes)
Section cross-reference(s): 42
IT 220175-98-4P **220175-99-5P 220176-00-1P**
(water-castable bottom **antireflective coatings** (BARCs) in i-line photolithog.)
REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L34 ANSWER 58 OF 66 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1998:776543 HCAPLUS
DOCUMENT NUMBER: 130:146089

TITLE: New antireflective coatings for 193 nm lithography
AUTHOR(S): Xu, Gu; Guerrero, Douglas J.; Dobson, Norman
CORPORATE SOURCE: Brewer Science Inc., Rolla, MO, 65401, USA
SOURCE: Proceedings of SPIE-The International Society for Optical Engineering (1998), 3333(Pt. 1, Advances in Resist Technology and Processing XV), 524-531
CODEN: PSISDG; ISSN: 0277-786X
PUBLISHER: SPIE-The International Society for Optical Engineering
DOCUMENT TYPE: Journal
LANGUAGE: English

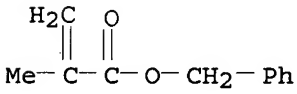
AB New bottom antireflective coatings (BARCs) for 193 nm lithog. have been recently developed by Brewer Science Inc. Copolymers of benzyl methacrylate (or benzyl acrylate) and hydroxypropyl methacrylate have been synthesized and used as a main component in 193 nm BARCs. The acrylic copolymers have strong absorbance at 193 nm UV light wavelength. The 193 nm BARCs were formulated in safe solvents such as Et lactate and formed by spin-on coating process. Thermosetting of the 193 nm BARCs limited their intermixing with photoresists. These 193 nm BARCs had optical d. of about 10 μm-1, k = 0.35, and n = 1.81. Preliminary oxygen plasma etch rates were >1.5 times DUV resists. Good profiles at small feature sizes (< 0.20 μm) were achieved with tested photoresists.

IT **72126-04-6P**, Benzyl methacrylate-2-hydroxypropyl methacrylate copolymer **220128-64-3P**, Benzyl acrylate-2-hydroxypropyl methacrylate copolymer
(new **antireflective coatings** for 193 nm lithog.)

RN 72126-04-6 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 2-hydroxypropyl ester, polymer with phenylmethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

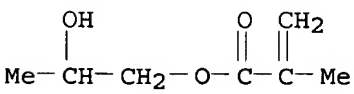
CM 1

CRN 2495-37-6
CMF C11 H12 O2



CM 2

CRN 923-26-2
CMF C7 H12 O3

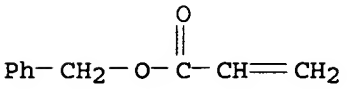


RN 220128-64-3 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 2-hydroxypropyl ester, polymer with

phenylmethyl 2-propenoate (9CI) (CA INDEX NAME)

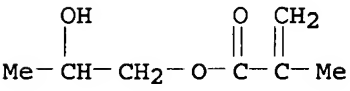
CM 1

CRN 2495-35-4
CMF C10 H10 O2



CM 2

CRN 923-26-2
CMF C7 H12 O3



CC 74-5 (Radiation Chemistry, Photochemistry, and **Photographic** and Other Reprographic Processes)
Section cross-reference(s): 42
IT **72126-04-6P**, Benzyl methacrylate-2-hydroxypropyl methacrylate copolymer **220128-64-3P**, Benzyl acrylate-2-hydroxypropyl methacrylate copolymer
(new **antireflective coatings** for 193 nm lithog.)
REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L34 ANSWER 59 OF 66 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1998:728663 HCAPLUS
DOCUMENT NUMBER: 130:8887
TITLE: Antireflective coating composition for photoresist composition
INVENTOR(S): Ding, Shuji; Lu, Ping-hung; Khanna, Dinesh N.; Shan, Jianhui; Durham, Dana L.; Dammel, Ralph R.; Rahman, M. Dalil
PATENT ASSIGNEE(S): Clariant International, Ltd., Switz.
SOURCE: PCT Int. Appl., 34 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9849603	A1	19981105	WO 1998-EP2334	1998 0421

W: CN, JP, KR, SG

RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE					
US 5994430	A	19991130	US 1997-841750		
				1997	
				0430	
EP 978016	A1	20000209	EP 1998-922750		
				1998	
				0421	
R: BE, DE, FR, GB, IT, NL					
JP 2000512402	T2	20000919	JP 1998-546558		
				1998	
				0421	
JP 3231794	B2	20011126			
TW 530193	B	20030501	TW 1998-87106633		
				1998	
				0429	
PRIORITY APPLN. INFO.:			US 1997-841750	A	
				1997	
				0430	
			WO 1998-EP2334	W	
				1998	
				0421	

AB The present invention relates to an antireflective coating composition comprising a novel polymer in a solvent composition The invention further comprises processes for using the antireflective coating composition in photolithog. The antireflective coating composition comprises a novel polymer and a solvent composition, where the novel polymer of the antireflective coating comprises at least one unit containing a dye that absorbs from about 180 nm to about 450 nm and at least one unit that contains no aromatic functionality. The solvent may be organic, preferably, a solvent of low toxicity, or it may be water, which may addnl. contain other water-miscible organic solvents.

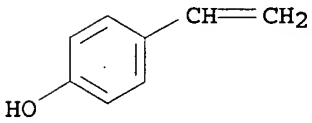
IT **24979-71-3DP**, diazotization of **24979-71-3P**
(preparation and use as **antireflective coatings** for photoresists)

RN 24979-71-3 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with 4-ethenylphenol (9CI) (CA INDEX NAME)

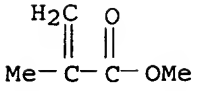
CM 1

CRN 2628-17-3
CMF C8 H8 O



CM 2

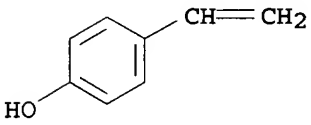
CRN 80-62-6
CMF C5 H8 O2



RN 24979-71-3 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with 4-ethenylphenol (9CI) (CA INDEX NAME)

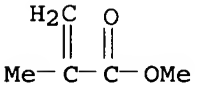
CM 1

CRN 2628-17-3
CMF C8 H8 O



CM 2

CRN 80-62-6
CMF C5 H8 O2



IC ICM G03F007-09
CC 74-5 (Radiation Chemistry, Photochemistry, and **Photographic** and Other Reprographic Processes)
Section cross-reference(s): 73
IT 84-86-6DP, reaction products with hydroxystyrene and Me methacrylate 94-09-7DP, Ethyl 4-aminobenzoate, reaction products with hydroxystyrene and Me methacrylate 98-37-3DP, reaction products with hydroxystyrene and Me methacrylate 99-92-3DP, reaction products with hydroxystyrene and Me methacrylate 100-01-6DP, reaction products with hydroxystyrene and Me methacrylate 150-13-0DP, 4-Aminobenzoic acid, reaction products with hydroxystyrene and Me methacrylate 6373-73-5DP, reaction products with hydroxystyrene and Me methacrylate 10312-55-7DP, reaction products with hydroxystyrene and Me methacrylate **24979-71-3DP**, diazotization of **24979-71-3P** 43115-40-8DP, reaction products with hydroxystyrene and Me methacrylate
(preparation and use as **antireflective coatings** for photoresists)
REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L34 ANSWER 60 OF 66 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1998:728662 HCAPLUS
DOCUMENT NUMBER: 130:8886

TITLE: Light-absorbing polymer
INVENTOR(S): Ding, Shuji; Khanna, Dinesh N.; Lu, Ping-hung; Shan, Jianhui; Dammel, Ralph R.; Durham, Dana L.; Rahman, M. Dalil; McCulloch, Iain
PATENT ASSIGNEE(S): Clariant International, Ltd., Switz.
SOURCE: PCT Int. Appl., 32 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

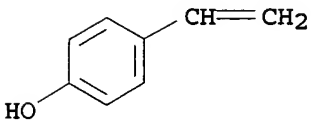
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9849602	A1	19981105	WO 1998-EP2333	1998 0421
W: CN, JP, KR, SG				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 5981145	A	19991109	US 1997-846986	1997 0430
EP 978015	A1	20000209	EP 1998-922749	1998 0421
R: BE, DE, FR, GB, IT, NL				
JP 2000512336	T2	20000919	JP 1998-546557	1998 0421
JP 3220698	B2	20011022		
TW 399081	B	20000721	TW 1998-87106630	1998 0429
PRIORITY APPLN. INFO.:			US 1997-846986 A	1997 0430
			WO 1998-EP2333 W	1998 0421

AB The present invention relates to a novel polymer suitable for use as an antireflective coating or as an additive in a photoresist for absorption of reflected light. The novel polymer comprises at least one unit containing a dye that absorbs from about 180 nm to about 450 nm and at least one unit that contains no aromatic functionality. The polymer is soluble in organic solvents, preferably solvents of low toxicity, or it may be soluble in water, which may addnl. contain other water-miscible organic solvents.

IT **24979-71-3DP**, diazotization of **24979-71-3P**
(preparation and use in preparing **antireflective coatings** or in photoresists for absorption of reflected light)
RN 24979-71-3 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with 4-ethenylphenol (9CI) (CA INDEX NAME)

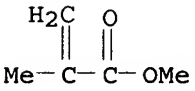
CM 1

CRN 2628-17-3
CMF C8 H8 O



CM 2

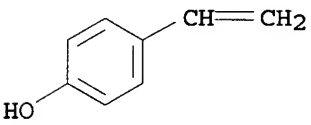
CRN 80-62-6
CMF C5 H8 O2



RN 24979-71-3 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with 4-ethenylphenol (9CI) (CA INDEX NAME)

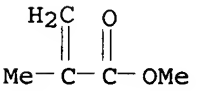
CM 1

CRN 2628-17-3
CMF C8 H8 O



CM 2

CRN 80-62-6
CMF C5 H8 O2



IC ICM G03F007-09
ICS C08F008-30
CC 74-5 (Radiation Chemistry, Photochemistry, and **Photographic** and Other Reprographic Processes)
Section cross-reference(s): 73
IT 84-86-6DP, reaction products with hydroxystyrene and Me methacrylate copolymer 94-09-7DP, Ethyl 4-aminobenzoate, reaction products with hydroxystyrene and Me methacrylate copolymer 99-92-3DP, reaction products with hydroxystyrene and

Me methacrylate copolymer 100-01-6DP, reaction products with hydroxystyrene and Me methacrylate copolymer 150-13-0DP, 4-Aminobenzoic acid, reaction products with hydroxystyrene and Me methacrylate copolymer 6373-73-5DP, reaction products with hydroxystyrene and Me methacrylate copolymer 10312-55-7DP, reaction products with hydroxystyrene and Me methacrylate copolymer **24979-71-3DP**, diazotization of **24979-71-3P** 43115-40-8DP, reaction products with hydroxystyrene and Me methacrylate copolymer
(preparation and use in preparing **antireflective coatings** or in photoresists for absorption of reflected light)

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L34 ANSWER 61 OF 66 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1998:466481 HCAPLUS
DOCUMENT NUMBER: 129:115622
TITLE: Bottom antireflective coating material composition and method of forming resist pattern using same
INVENTOR(S): Mizutani, Kazuyoshi; Momota, Makoto
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Eur. Pat. Appl., 52 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 851300	A1	19980701	EP 1997-122819	19971223
EP 851300	B1	20011024		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 10186671	A2	19980714	JP 1996-343738	19961224
JP 3632875	B2	20050323		
JP 10239837	A2	19980911	JP 1997-46001	19970228
US 6165684	A	20001226	US 1997-997393	19971223
US 6808869	B1	20041026	US 2000-615708	20000713

PRIORITY APPLN. INFO.: JP 1996-343738 A 19961224
JP 1997-46001 A 19970228

US 1997-997393 A3
1997
1223

AB A composition for a bottom antireflective coating material and a method for forming a resist pattern using the composition, which is high in the dry etching rate, high in the resolution, excellent in the resist film thickness dependency and high in the effect of preventing reflective light against exposure light and provides no intermixing with the photoresist layer, are disclosed, wherein the composition for a bottom antireflective coating material comprises a naphthalene group-containing polymer having a specific structure.

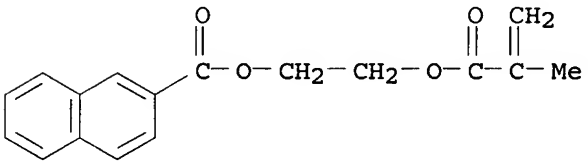
IT **209848-19-1P 209848-21-5P 209848-23-7P**
209848-24-8P 209848-28-2P
(preparation and use in **coating** compns. for preparing bottom **antireflective coatings** for photoresist patterns)

RN 209848-19-1 HCAPLUS

CN 2-Naphthalenecarboxylic acid, 2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl ester, polymer with methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

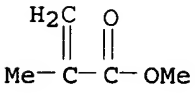
CM 1

CRN 209848-18-0
CMF C17 H16 O4



CM 2

CRN 80-62-6
CMF C5 H8 O2

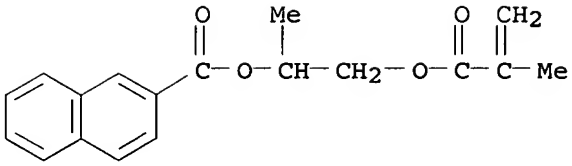


RN 209848-21-5 HCAPLUS

CN 2-Naphthalenecarboxylic acid, 1-methyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl ester, polymer with 2-hydroxypropyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

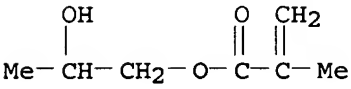
CM 1

CRN 209848-20-4
CMF C18 H18 O4



CM 2

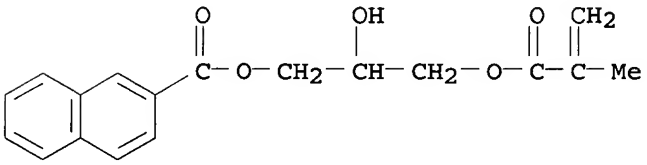
CRN 923-26-2
CMF C7 H12 O3



RN 209848-23-7 HCAPLUS
CN 2-Naphthalenecarboxylic acid, 2-hydroxy-3-[(2-methyl-1-oxo-2-propenyl)oxy]propyl ester, polymer with 2-propenenitrile (9CI) (CA INDEX NAME)

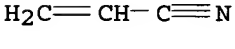
CM 1

CRN 209848-22-6
CMF C18 H18 O5



CM 2

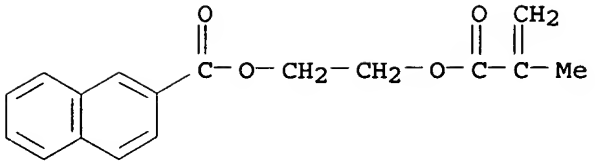
CRN 107-13-1
CMF C3 H3 N



RN 209848-24-8 HCAPLUS
CN 2-Naphthalenecarboxylic acid, 2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl ester, polymer with 2-(2-hydroxyethoxy)ethyl 2-propenoate (9CI) (CA INDEX NAME)

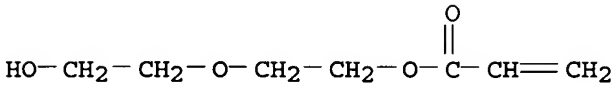
CM 1

CRN 209848-18-0
CMF C17 H16 O4



CM 2

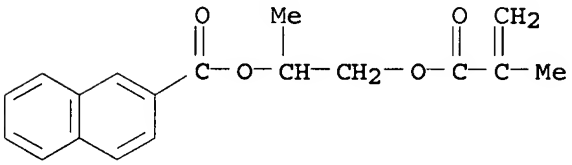
CRN 13533-05-6
CMF C7 H12 O4



RN 209848-28-2 HCAPLUS
CN 2-Naphthalenecarboxylic acid, 1-methyl-2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl ester, polymer with 2-hydroxyethyl 2-propenoate and N-(hydroxymethyl)-2-propenamide (9CI) (CA INDEX NAME)

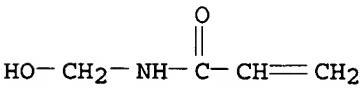
CM 1

CRN 209848-20-4
CMF C18 H18 O4



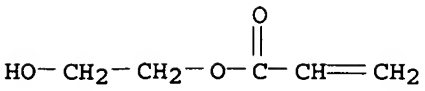
CM 2

CRN 924-42-5
CMF C4 H7 N O2



CM 3

CRN 818-61-1
CMF C5 H8 O3



IC ICM G03F007-09
CC 74-5 (Radiation Chemistry, Photochemistry, and **Photographic** and Other Reprographic Processes)
IT **209848-19-1P 209848-21-5P 209848-23-7P**
209848-24-8P 209848-26-0P 209848-27-1P
209848-28-2P 209848-30-6P 209848-32-8P 209848-34-0P
209848-35-1P
(preparation and use in **coating** compns. for preparing bottom **antireflective coatings** for photoresist patterns)
REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L34 ANSWER 62 OF 66 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1998:202628 HCAPLUS
DOCUMENT NUMBER: 128:288328
TITLE: Antireflective coating solution for photoresist
INVENTOR(S): McCulloch, Iain; Dammel, Ralph R.; Corso, Anthony J.; Ding, Shuji; Durham, Dana L.; Lu, Ping-Hung; Kang, Ming; Khanna, Dinesh N.
PATENT ASSIGNEE(S): Clariant Finance (Bvi) Limited, Virgin I. (Brit.)
SOURCE: U.S., 10 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5733714	A	19980331	US 1996-724109	1996 0930
WO 9814834	A1	19980409	WO 1997-EP5281	1997 0926
W: CN, JP, KR, SG				
RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
EP 929844	A1	19990721	EP 1997-944895	1997 0926
EP 929844	B1	20011212		
R: BE, DE, FR, GB, IT, NL				
CN 1232552	A	19991020	CN 1997-198410	1997 0926
CN 1111760	B	20030618		
JP 2001502439	T2	20010220	JP 1998-516210	1997

					0926
TW 419618	B	20010121	TW 1997-86114234		
					1997
					0930
KR 2000048649	A	20000725	KR 1999-702592		
					1999
					0326
PRIORITY APPLN. INFO.:			US 1996-724109	A	
					1996
					0930
			WO 1997-EP5281	W	
					1997
					0926

AB The present invention relates to a novel antireflective coating solution for a photoresist and a process for its use in photolithog. The antireflective coating solution comprises a novel polymer and an organic solvent or a mixture of organic solvents, where the novel polymer comprises a unit containing a dye that absorbs from about 180 nm to about 450 nm and a unit containing a crosslinking group.

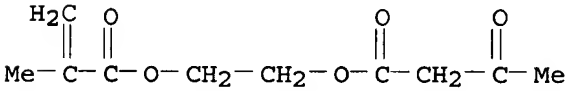
IT **205744-38-3P**
(preparation and reaction in preparing polymers containing dye and crosslinking groups for **antireflective coatings** for photoresists)

RN 205744-38-3 HCAPLUS

CN Butanoic acid, 3-oxo-, 2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl ester, polymer with 2-[2-(ethenyloxy)ethoxy]ethanol (9CI) (CA INDEX NAME)

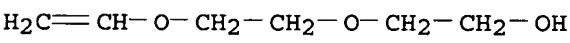
CM 1

CRN 21282-97-3
CMF C10 H14 O5



CM 2

CRN 929-37-3
CMF C6 H12 O3



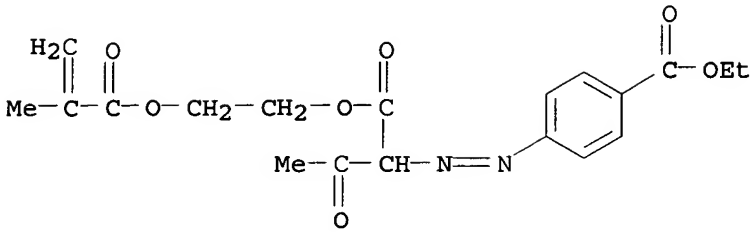
IT **205744-31-6P 205744-33-8P 205744-34-9P 205744-44-1P**
(preparation and use in **antireflective coatings** for photoresists)

RN 205744-31-6 HCAPLUS

CN Benzoic acid, 4-[[1-[[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethoxy]carbonyl]-2-oxopropyl]azo]-, ethyl ester, polymer with N-(hydroxymethyl)-2-methyl-2-propenamide and methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

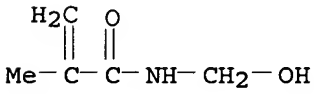
CM 1

CRN 205744-30-5
CMF C19 H22 N2 O7



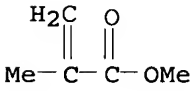
CM 2

CRN 923-02-4
CMF C5 H9 N O2



CM 3

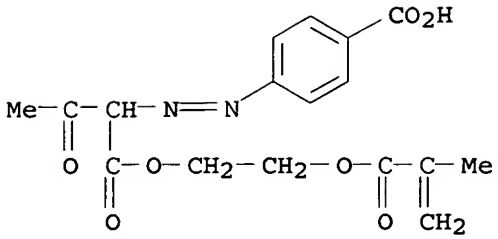
CRN 80-62-6
CMF C5 H8 O2



RN 205744-33-8 HCAPLUS
CN Benzoic acid, 4-[[1-[[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethoxy]carbonyl]-2-oxopropyl]azo]-, polymer with N-(hydroxymethyl)-2-methyl-2-propenamide and methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

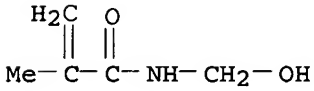
CM 1

CRN 205744-32-7
CMF C17 H18 N2 O7



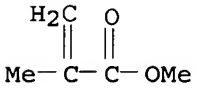
CM 2

CRN 923-02-4
CMF C5 H9 N O2



CM 3

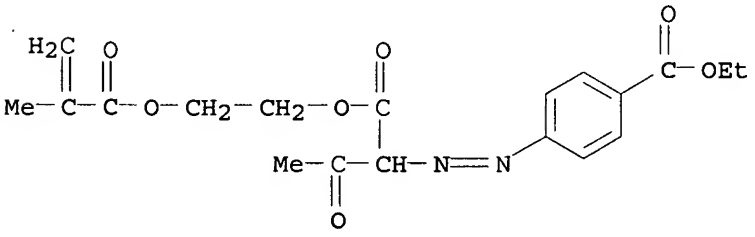
CRN 80-62-6
CMF C5 H8 O2



RN 205744-34-9 HCAPLUS
CN Benzoic acid, 4-[[1-[[2-[(2-methyl-1-oxo-2-propenyl)oxy]ethoxy]carbonyl]-2-oxopropyl]azo]-, ethyl ester, polymer with methyl methoxy[(1-oxo-2-propenyl)amino]acetate and methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

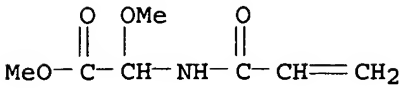
CM 1

CRN 205744-30-5
CMF C19 H22 N2 O7



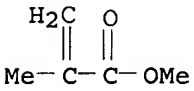
CM 2

CRN 77402-03-0
CMF C7 H11 N O4



CM 3

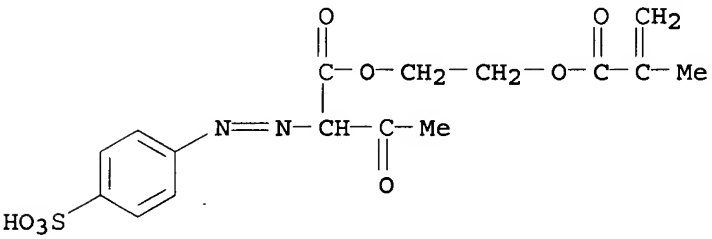
CRN 80-62-6
CMF C5 H8 O2



RN 205744-44-1 HCAPLUS
CN Butanoic acid, 3-oxo-2-[(4-sulfophenyl)azo]-, 2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl ester, polymer with 2-[2-(ethenyloxy)ethoxy]ethanol (9CI) (CA INDEX NAME)

CM 1

CRN 205744-43-0
CMF C16 H18 N2 O8 S



CM 2

CRN 929-37-3
CMF C6 H12 O3

IC ICM G03C005-00
ICS C03F008-30
INCL 430325000
CC 74-5 (Radiation Chemistry, Photochemistry, and **Photographic** and Other Reprographic Processes)
Section cross-reference(s): 73

IT 2154-66-7P 17333-88-9P 19262-74-9P 205744-30-5P
205744-32-7P **205744-38-3P**
(preparation and reaction in preparing polymers containing dye and crosslinking groups for **antireflective coatings** for photoresists)
IT **205744-31-6P 205744-33-8P 205744-34-9P**
205744-44-1P
(preparation and use in **antireflective coatings** for photoresists)
REFERENCE COUNT: 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L34 ANSWER 63 OF 66 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1998:119247 HCAPLUS
DOCUMENT NUMBER: 128:223858
TITLE: Composition for bottom antireflective coating material and resist pattern formation using same
INVENTOR(S): Mizutani, Ichiro; Yoshimoto, Hiroshi
PATENT ASSIGNEE(S): Fuji Photo Film Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 15 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10048833	A2	19980220	JP 1996-208630	1996 0807
JP 3617878	B2	20050209		
TW 406215	B	20000921	TW 1997-86110924	1997 0731
EP 823661	A1	19980211	EP 1997-113602	1997 0806
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
US 6090531	A	20000718	US 1997-908522	1997 0807
US 6248500	B1	20010619	US 2000-499703	2000 0207

PRIORITY APPLN. INFO.:
JP 1996-208630 A 1996 0807
JP 1996-208631 A 1996 0807
US 1997-908522 A3 1997 0807

AB The title composition contains a polymer having repeating units CH2CR1(XCOCH:CHQYn) and CH2R2Z [R1, R2 = H, Me, Cl, Br, cyano; X = single bond or divalent organic linking group; Q = C6-14 aromatic ring with (n + 1) valences; Y = electron-donating group; Z = organic functional group having CH2OR3 (R3 = H or C1-20 hydrocarbon) in its terminal; n = 0-3]. A method of forming a resist pattern is also claimed, in which the composition is coated on a substrate and baked to cure the anti-reflective coating and a patterned photoresist layer is then formed thereon. The composition provides a film showing reduction of the effect of reflected light. The composition has higher dry etching rate than the resist and is insol. in a solvent of resist, i.e., the component in the resist and the component in the antireflective layer are not mixed together.

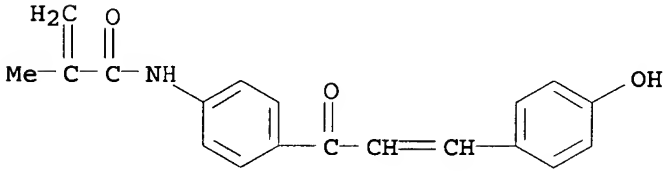
IT **204185-51-3P 204185-52-4P 204185-53-5P**
204185-54-6P
(**coating**; resist patterning using bottom **antireflective coating** material)

RN 204185-51-3 HCAPLUS

CN 2-Propenamide, N-(hydroxymethyl)-, polymer with N-[4-[3-(4-hydroxyphenyl)-1-oxo-2-propenyl]phenyl]-2-methyl-2-propenamide (9CI) (CA INDEX NAME)

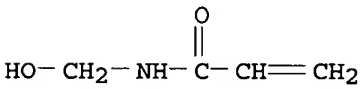
CM 1

CRN 204185-36-4
CMF C19 H17 N O3



CM 2

CRN 924-42-5
CMF C4 H7 N O2

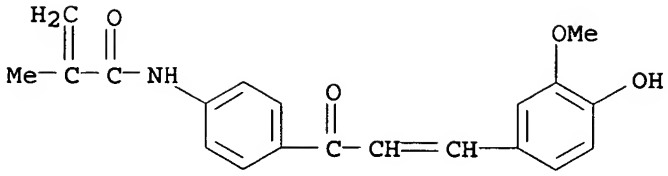


RN 204185-52-4 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with N-[4-[3-(4-hydroxy-3-methoxyphenyl)-1-oxo-2-propenyl]phenyl]-2-methyl-2-propenamide and N-(hydroxymethyl)-2-propenamide (9CI) (CA INDEX NAME)

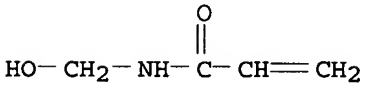
CM 1

CRN 204185-38-6
CMF C20 H19 N O4



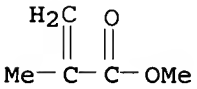
CM 2

CRN 924-42-5
CMF C4 H7 N O2



CM 3

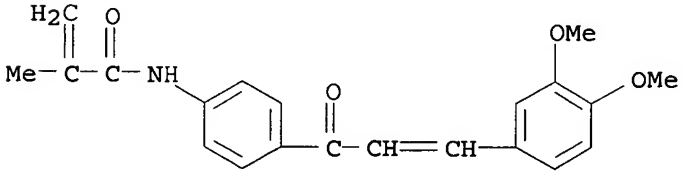
CRN 80-62-6
CMF C5 H8 O2



RN 204185-53-5 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 1,1-dimethylethyl ester, polymer with N-[4-[3-(3,4-dimethoxyphenyl)-1-oxo-2-propenyl]phenyl]-2-methyl-2-propenamide and N-(hydroxymethyl)-2-propenamide (9CI) (CA INDEX NAME)

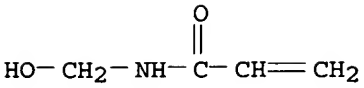
CM 1

CRN 204185-49-9
CMF C21 H21 N O4



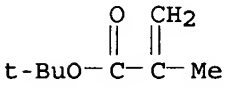
CM 2

CRN 924-42-5
CMF C4 H7 N O2



CM 3

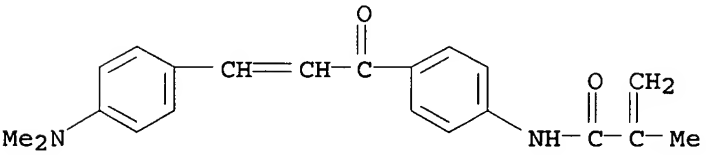
CRN 585-07-9
CMF C8 H14 O2



RN 204185-54-6 HCAPLUS
CN 2-Propenamide, N-[4-[3-[4-(dimethylamino)phenyl]-1-oxo-2-propenyl]phenyl]-2-methyl-, polymer with N-(1,1-dimethyl-3-oxobutyl)-2-propenamide and 2-propenenitrile (9CI) (CA INDEX NAME)

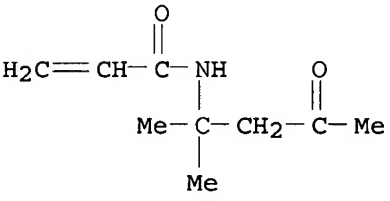
CM 1

CRN 204185-50-2
CMF C21 H22 N2 O2



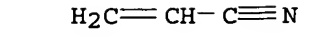
CM 2

CRN 2873-97-4
CMF C9 H15 N O2



CM 3

CRN 107-13-1
CMF C3 H3 N



IC ICM G03F007-11
ICS C09D005-00; C09D129-10; C09D133-06; C09D133-24; G03F007-004; H01L021-027; C08F216-14; C08F220-40; C08F220-54; C08F299-00
CC 74-5 (Radiation Chemistry, Photochemistry, and **Photographic** and Other Reprographic Processes)
IT **204185-51-3P 204185-52-4P 204185-53-5P 204185-54-6P** 204185-55-7P
(**coating**; resist patterning using bottom **antireflective coating** material)

L34 ANSWER 64 OF 66 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1997:513496 HCAPLUS
DOCUMENT NUMBER: 127:183332
TITLE: Antireflective coatings for photoresist compositions
INVENTOR(S): McCulloch, Iain; Dammel, Ralph R.; Durham, Dana L.; Lu, Ping-hung
PATENT ASSIGNEE(S): Hoechst Celanese Corp., USA
SOURCE: U.S., 8 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5652317	A	19970729	US 1996-698742	1996 0816
TW 382024	B	20000211	TW 1997-86101649	1997 0213
WO 9807070	A1	19980219	WO 1997-US14406	1997 0815
W: CN, JP, KR, SG RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
WO 9807071	A1	19980219	WO 1997-US14447	1997 0815
W: CN, JP, KR, SG RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
EP 919013	A1	19990602	EP 1997-936505	1997 0815
EP 919013	B1	20011114		
R: BE, DE, FR, GB, IT, NL				
EP 919014	A1	19990602	EP 1997-938358	1997 0815
EP 919014	B1	20020102		
R: BE, DE, FR, GB, IT, NL				
CN 1227638	A	19990901	CN 1997-197198	

				1997 0815
CN 1228172	A	19990908	CN 1997-197298	1997 0815
CN 1111759	B	20030618		
JP 2001500982	T2	20010123	JP 1998-510085	1997 0815
JP 2001505234	T2	20010417	JP 1998-510064	1997 0815
KR 2000029929	A	20000525	KR 1999-701145	1999 0211
KR 2000029961	A	20000525	KR 1999-701201	1999 0212
PRIORITY APPLN. INFO.:			US 1996-698742 A	1996 0816
			WO 1997-US14406 W	1997 0815
			WO 1997-US14447 W	1997 0815

AB The present invention relates to a novel antireflective coating process solution and a process for its use in photolithog. The antireflective coating process solution comprises a novel polymer and an organic solvent or a mixture of organic solvents, where the novel polymer comprises a unit containing a dye that absorbs from about 180 nm to about 450 nm and a unit containing a crosslinking group.

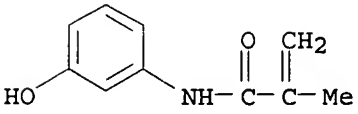
IT **194091-53-7DP**, reaction product with diazonium salt
194091-54-8DP, reaction product with diazonium salt
(prepared for **antireflective coating** for photoresist composition)

RN 194091-53-7 HCAPLUS

CN 2-Propenamide, N-(3-hydroxyphenyl)-2-methyl-, polymer with 2-[2-(ethenyloxy)ethoxy]ethanol and N-(hydroxymethyl)-2-propenamide (9CI) (CA INDEX NAME)

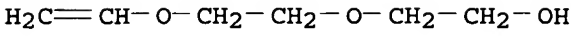
CM 1

CRN 14473-49-5
CMF C10 H11 N O2



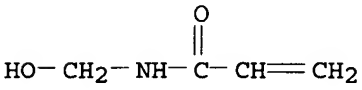
CM 2

CRN 929-37-3
CMF C6 H12 O3



CM 3

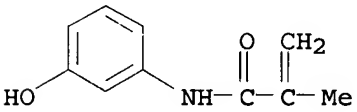
CRN 924-42-5
CMF C4 H7 N O2



RN 194091-54-8 HCAPLUS
CN 2-Propenamide, N-(3-hydroxyphenyl)-2-methyl-, polymer with N-(hydroxymethyl)-2-propenamide (9CI) (CA INDEX NAME)

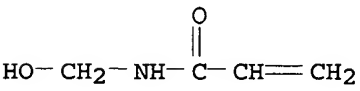
CM 1

CRN 14473-49-5
CMF C10 H11 N O2



CM 2

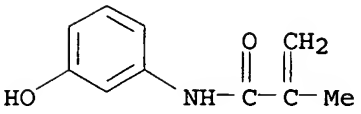
CRN 924-42-5
CMF C4 H7 N O2



IT **194091-53-7P**, 2-[2(Ethenyloxy)ethoxy]-ethanol; N-(hydroxymethyl) acrylamide; N-(3-hydroxyphenyl methacrylamide) copolymer
(prepared for preparation of dye unit-containing crosslinkable polymer for **antireflective coating** for photoresist composition)
RN 194091-53-7 HCAPLUS
CN 2-Propenamide, N-(3-hydroxyphenyl)-2-methyl-, polymer with 2-[2-(ethenyloxy)ethoxy]ethanol and N-(hydroxymethyl)-2-propenamide (9CI) (CA INDEX NAME)

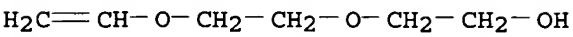
CM 1

CRN 14473-49-5
CMF C10 H11 N O2



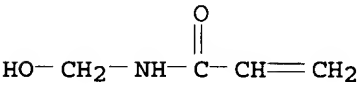
CM 2

CRN 929-37-3
CMF C6 H12 O3



CM 3

CRN 924-42-5
CMF C4 H7 N O2



IC ICM C08F226-00
ICS C08F008-30; G03G013-06
INCL 526312000
CC 74-5 (Radiation Chemistry, Photochemistry, and **Photographic** and Other Reprographic Processes)
IT 19089-82-8DP, reaction product with N-containing acrylic polymer
194091-53-7DP, reaction product with diazonium salt
194091-54-8DP, reaction product with diazonium salt
(prepared for **antireflective coating** for photoresist composition)
IT 14473-49-5P, N-(3-Hydroxyphenyl methacrylamide) 19089-82-8P
194091-53-7P, 2-[2(Ethenyloxy)ethoxy]-ethanol; N-(hydroxymethyl) acrylamide; N-(3-hydroxyphenyl methacrylamide) copolymer
(prepared for preparation of dye unit-containing crosslinkable polymer for **antireflective coating** for photoresist composition)

L34 ANSWER 65 OF 66 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1997:513490 HCAPLUS
DOCUMENT NUMBER: 127:183331
TITLE: Aqueous antireflective coatings for photoresist compositions
INVENTOR(S): McCulloch, Iain; Dammel, Ralph R.; Durham, Dana L.; Lu, Ping-hung; Kang, Ming; Khanna, Dinesh N.; Ding, Shuji
PATENT ASSIGNEE(S): Hoechst Celanese Corp., USA
SOURCE: U.S., 7 pp.

CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5652297	A	19970729	US 1996-699001	19960816

PRIORITY APPLN. INFO.: US 1996-699001 19960816

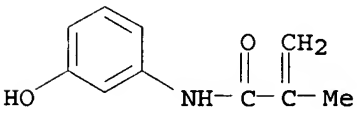
AB The present invention relates to a novel aqueous antireflective coating process solution and a process for its use in photolithog. The antireflective coating process solution comprises a novel polymer and water, where the novel polymer of the antireflective coating process comprises at least one unit containing a dye that absorbs 180-450 nm, at least one unit containing a crosslinking group and at least one unit derived from a hydrophilic vinyl monomer or a vinyl monomer capable of becoming hydrophilic.

IT **194091-72-0DP**, reaction product with diazonium salt of sulfanilic acid **194091-73-1DP**, reaction product with diazonium salt
(prepared for aqueous **antireflective coating** for photoresist composition)

RN 194091-72-0 HCAPLUS
CN 2-Propenamide, N-(3-hydroxyphenyl)-2-methyl-, polymer with 2-[2-(ethenyloxy)ethoxy]ethanol (9CI) (CA INDEX NAME)

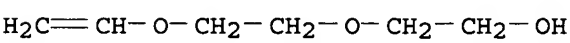
CM 1

CRN 14473-49-5
CMF C10 H11 N O2



CM 2

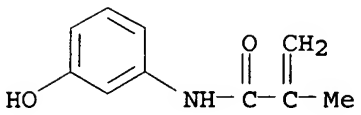
CRN 929-37-3
CMF C6 H12 O3



RN 194091-73-1 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with N-(hydroxymethyl)-2-propenamide and N-(3-hydroxyphenyl)-2-methyl-2-propenamide (9CI) (CA INDEX NAME)

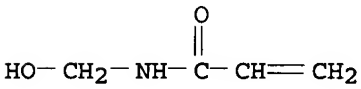
CM 1

CRN 14473-49-5
CMF C10 H11 N O2



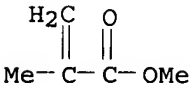
CM 2

CRN 924-42-5
CMF C4 H7 N O2



CM 3

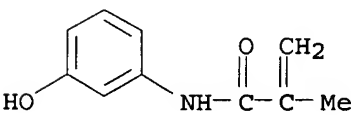
CRN 80-62-6
CMF C5 H8 O2



IT **194091-72-0P**, Diethylene glycol monovinyl ether;
N-(3-hydroxyphenyl) methacrylamide copolymer **194091-73-1P**
, N-(Hydroxymethyl)acrylamide-N-(3-hydroxyphenyl)
methacrylamide-methyl methacrylate copolymer
(prepared for preparation of dye unit-containing crosslinkable polymer for aqueous **antireflective coating** for photoresist composition)
RN 194091-72-0 HCAPLUS
CN 2-Propenamide, N-(3-hydroxyphenyl)-2-methyl-, polymer with
2-[2-(ethenyloxy)ethoxy]ethanol (9CI) (CA INDEX NAME)

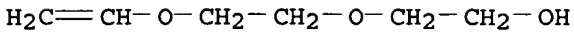
CM 1

CRN 14473-49-5
CMF C10 H11 N O2



CM 2

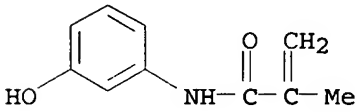
CRN 929-37-3
CMF C6 H12 O3



RN 194091-73-1 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with N-(hydroxymethyl)-2-propenamide and N-(3-hydroxyphenyl)-2-methyl-2-propenamide (9CI) (CA INDEX NAME)

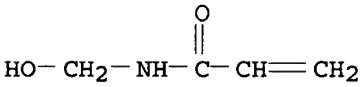
CM 1

CRN 14473-49-5
CMF C10 H11 N O2



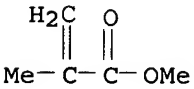
CM 2

CRN 924-42-5
CMF C4 H7 N O2



CM 3

CRN 80-62-6
CMF C5 H8 O2



IC ICM C08F008-30
ICS C08F226-00; G03G013-06
INCL 524555000
CC 74-5 (Radiation Chemistry, Photochemistry, and **Photographic** and Other Reprographic Processes)
IT 2154-66-7DP, reaction product with vinyl-containing acrylic copolymer
17333-88-9DP, reaction product with acrylic-vinyl copolymer
194091-72-0DP, reaction product with diazonium salt of sulfanilic acid **194091-73-1DP**, reaction product with diazonium salt

(prepared for aqueous **antireflective coating** for photoresist composition)

IT 2154-66-7P 14473-49-5P, N-(3-Hydroxyphenyl methacrylamide) 17333-88-9P **194091-72-0P**, Diethylene glycol monovinyl ether; N-(3-hydroxyphenyl) methacrylamide copolymer **194091-73-1P**, N-(Hydroxymethyl)acrylamide-N-(3-hydroxyphenyl) methacrylamide-methyl methacrylate copolymer
(prepared for preparation of dye unit-containing crosslinkable polymer for aqueous **antireflective coating** for photoresist composition)

L34 ANSWER 66 OF 66 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1994:204683 HCAPLUS
DOCUMENT NUMBER: 120:204683
TITLE: Metal ion reduction in top antireflective coatings for photoresists
INVENTOR(S): Rahman, M. Dalil; Durham, Dana L.
PATENT ASSIGNEE(S): Hoechst Celanese Corp., USA
SOURCE: PCT Int. Appl., 25 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9401807	A1	19940120	WO 1993-US6139	1993 0624
W: JP				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
EP 648350	A1	19950419	EP 1993-916811	1993 0624
EP 648350	B1	19970514		
R: DE, FR, GB, IT				
JP 08504279	T2	19960507	JP 1993-503373	1993 0624
JP 3287569	B2	20020604	JP 1994-503373	1993 0624
US 5516886	A	19960514	US 1994-258898	1994 0610
US 5624789	A	19970429	US 1995-460392	1995 0602

PRIORITY APPLN. INFO.:	US 1992-911604	A	1992 0710
	US 1992-984655	A	1992 1202
	WO 1993-US6139	W	

1993
0624

US 1994-258898 A3
1994
0610

AB The present invention provides methods for producing top antireflective coatings having a very low level of metal ions for photoresists utilizing specially treated ion exchange resins. A method is also provided for producing semiconductor devices using such top antireflective coatings.

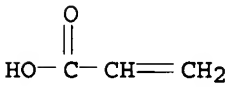
IT **9003-01-4P**, Poly(acrylic acid)
(metal ion removal from, for **antireflective coatings** for photoresists)

RN 9003-01-4 HCAPLUS

CN 2-Propenoic acid, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 79-10-7
CMF C3 H4 O2



IC ICM G03F007-09

CC 74-5 (Radiation Chemistry, Photochemistry, and **Photographic** and Other Reprographic Processes)

IT 335-67-1P, Pentadecafluorooctanoic acid **9003-01-4P**, Poly(acrylic acid)
(metal ion removal from, for **antireflective coatings** for photoresists)

UNITED STATES PATENT AND TRADEMARK OFFICE

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United States Patent and Trademark Office
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P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

BIBDATASHEET

Bib Data Sheet

CONFIRMATION NO. 7931

SERIAL NUMBER	FILING DATE	CLASS	GROUP ART UNIT	ATTORNEY DOCKET NO.
10/689,482	10/20/2003 RULE	430	1752	27615-CNT2

APPLICANTS

Xie Shao, Rolla, MO;

Robert Cox, St. James, MO;
Shreeram V. Deshpande, Rolla, MO;Tony D. Flaim, St. James, MO;
Rama Puligadda, Rolla, MO;

** CONTINUING DATA **********

This application is a CON of 09/961,751 09/24/2001 ABN SJL
which is a CON of 09/450,966 11/30/1999 ABN

** FOREIGN APPLICATIONS **********

None SJL

IF REQUIRED, FOREIGN FILING LICENSE GRANTED ** SMALL ENTITY **
** 12/23/2003

Foreign Priority claimed ☐ yes ☑ no 35 USC 119 (a-d) conditions met ☐ yes ☐ no ☐ Met after Allowance Verified and Acknowledged Examiner's Signature SJL Initials	STATE OR COUNTRY MO	SHEETS DRAWING 0	TOTAL CLAIMS 44	INDEPENDENT CLAIMS 13

ADDRESS
23589
HOVEY WILLIAMS LLP
2405 GRAND BLVD., SUITE 400
KANSAS CITY , MO
64108

TITLE
Non-aromatic chromophores for use in polymer anti-reflective coatings

FILING FEE	FEES: Authority has been given in Paper	☐ All Fees ☐ 1.16 Fees (Filing)

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FILE 'REGISTRY' ENTERED AT 12:17:55 ON 27 JAN 2006

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                 SEL RN

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L6               STR

     FILE 'REGISTRY' ENTERED AT 09:33:02 ON 27 JAN 2006
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L9            50 S L8 AND L4
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L33          131 S L32(L)COAT?
L34           66 S L33 AND PHOTOG?/SC
                 SEL L34 HIT RN 1-66
L35          650 S L24
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L38            1 S L36 AND (ANTI(A)REFLECT? OR ANTIREFLECT?)
L39            6 S L36(L)COAT?
L40           20 S L36 AND PHOTOG?/SC
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L42           8 S L28
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L46           0 S L44 AND (ANTI(A)REFLECT? OR ANTIREFLECT?)
L47           4 S L44 AND COAT?
L48           9 S L44 AND PHOTOG?/SC
L49          20 S L42 OR L45-L48
                SEL HIT RN 1-20

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L11             STR
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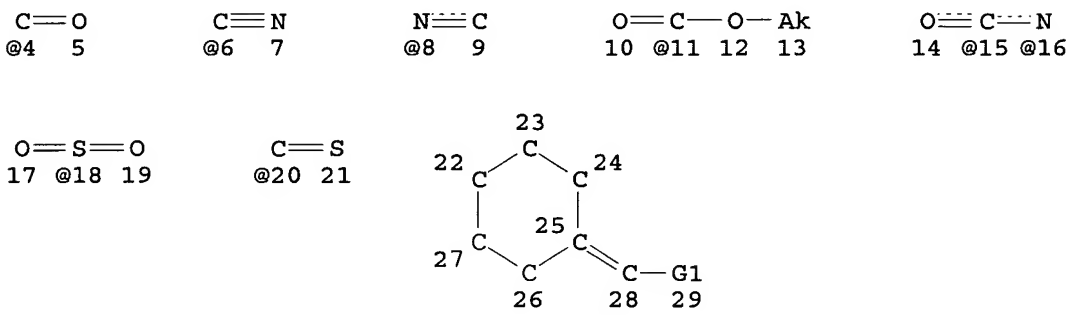


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DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS  26

STEREO ATTRIBUTES: NONE
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L14             SCR 1929
L16             SCR 2078
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                 OR ANTIREFLECT?)
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                T? OR ANTIREFLECT?)
L47           4 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L44 AND COAT?
L48           9 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L44 AND PHOTOG?/SC
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                L47 OR L48)


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=> d l49 1-20 ibib abs hitstr hitind
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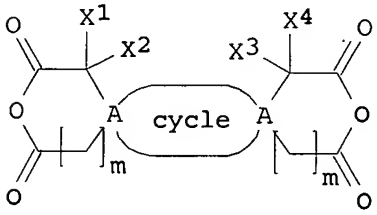
L49 ANSWER 1 OF 20 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2005:1285449 HCAPLUS
DOCUMENT NUMBER: 144:43288
TITLE: Acid dianhydrides, polyamic acids, polyimides, their polyamide derivatives, varnishes, alignment films, and liquid-crystal displays
INVENTOR(S): Tamura, Norihisa
PATENT ASSIGNEE(S): Chisso Corp., Japan; Chisso Petrochemical Corporation
SOURCE: Jpn. Kokai Tokkyo Koho, 29 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2005336246	A2	20051208	JP 2004-154424	2004 0525

PRIORITY APPLN. INFO.: JP 2004-154424 2004 0525

GI



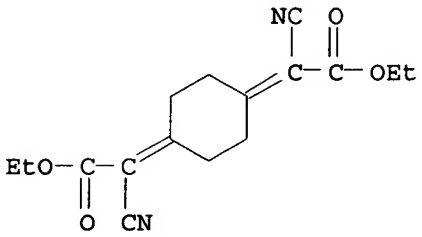
I

AB The anhydrides comprise I [Cycle = (organic group-substituted) alicyclic structure; A = spirocarbon; m = 0, 1; X1-X4 = H, F]. Polyamic acids and polyimides obtained from the anhydrides are also claimed. Polyamide-polyamic acids and polyamide-polyimides are obtained from (A) ≥1 carboxylic acids selected from tricarboxylic acids, dicarboxylic acids, and their derivs., (B) the above dianhydrides, and (C) diamines. The varnishes contain the polyamic acids, the polyimides, the polyamide-polyamic acids, and/or the polyamide-polyimides. The displays having alignment films obtained from the varnishes show stable pre-tilt angle, no alignment defects of liquid-crystalline mols., and high voltage holding ratio.

IT **870771-10-1P**
(intermediates in anhydride preparation; acid dianhydrides for polyimide alignment films of LCD with high voltage holding ratio)

RN 870771-10-1 HCAPLUS

CN Acetic acid, 2,2'-(1,4-cyclohexanediylidene)bis[2-cyano-, diethyl ester (9CI) (CA INDEX NAME)



IC ICM C08G073-10
ICS C07D493-10; G02F001-1337
CC 74-13 (Radiation Chemistry, Photochemistry, and **Photographic** and Other Reprographic Processes)
Section cross-reference(s): 35, 38
IT **870771-10-1P** 870771-11-2P 870771-13-4P 870771-14-5P 870771-15-6P
(intermediates in anhydride preparation; acid dianhydrides for polyimide alignment films of LCD with high voltage holding ratio)

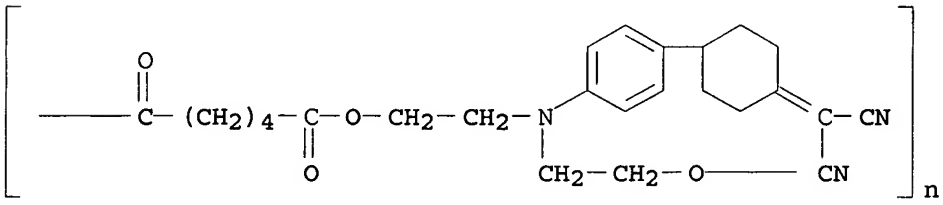
L49 ANSWER 2 OF 20 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:793319 HCAPLUS
DOCUMENT NUMBER: 141:424526
TITLE: Charge transfer interactions in polyesters with a donor-(σ-bridge)-acceptor moiety in the repeating unit
AUTHOR(S): Oosterbaan, Wibren D.; Kaats-Richters, Veronica E. M.; Jenneskens, Leonardus W.; van Walree, Cornelis A.
CORPORATE SOURCE: Debye Institute, Department of Physical Organic Chemistry, Utrecht University, Utrecht, 3584 CH, Neth.
SOURCE: Journal of Polymer Science, Part A: Polymer Chemistry (2004), 42(19), 4775-4784
CODEN: JPACEC; ISSN: 0887-624X
PUBLISHER: John Wiley & Sons, Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Two high mol. weight linear polyesters were investigated to gain insight in how the photophysics of electron donor-(σ-spacer)-electron acceptor (DσA) compds. are affected by incorporation into a polymer. They were prepared by condensation of either adipoyl or sebacoyl chloride with a diol that was functionalized with an N,N-dialkylaniline donor, a cyclohexyl type σ-spacer, and a 1,1-dicyanovinyl acceptor. The solubility, which is very low, and the thermal properties of the polyesters are dictated by phys. crosslinking as a consequence of interchain donor-acceptor interactions. Charge transfer (CT) absorption and emission are observed, which involve CT between DσA moieties of different chains rather than CT processes within a single DσA unit. As a result, the photophysics of the DσA units in the polyesters differs strongly from that of similar DσA compds. in solution Upon swelling the polymers with THF, the CT fluorescence disappears partly. Analogous polymers containing only an N,N-dialkylaniline donor display dual fluorescence; one

band reflects local emission, while the other is attributed to excimer emission.

IT **794535-16-3P 794535-19-6P**
(charge transfer interactions in polyesters with donor-(σ-bridge)-acceptor moiety in repeating unit)

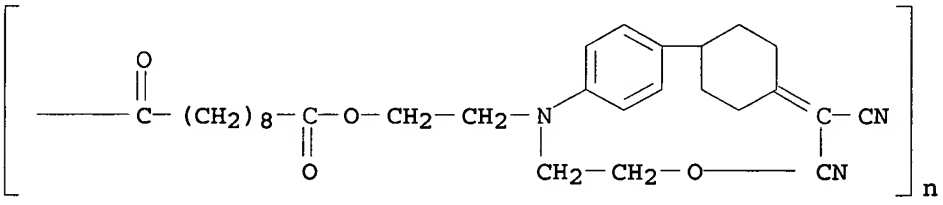
RN 794535-16-3 HCAPLUS

CN Poly[oxy-1,2-ethanediyl[[4-[4-(dicyanomethylene)cyclohexyl]phenyl]imino]-1,2-ethanediyloxy(1,6-dioxo-1,6-hexanediyl)] (9CI) (CA INDEX NAME)



RN 794535-19-6 HCAPLUS

CN Poly[oxy-1,2-ethanediyl[[4-[4-(dicyanomethylene)cyclohexyl]phenyl]imino]-1,2-ethanediyloxy(1,10-dioxo-1,10-decanediyl)] (9CI) (CA INDEX NAME)



CC 35-5 (Chemistry of Synthetic High Polymers)
Section cross-reference(s): 36

IT 26520-13-8P 71170-09-7P 794535-12-9P 794535-15-2P
794535-16-3P 794535-17-4P 794535-18-5P
794535-19-6P
(charge transfer interactions in polyesters with donor-(σ-bridge)-acceptor moiety in repeating unit)

REFERENCE COUNT: 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L49 ANSWER 3 OF 20 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 2004:217338 HCAPLUS

DOCUMENT NUMBER: 140:278505

TITLE: Asymmetric anhydrides, polyamic acids, polyimides, and polyamideimides therefrom, varnishes and liquid crystal alignment layers therefrom, and displays therewith

INVENTOR(S): Tamura, Norihisa

PATENT ASSIGNEE(S): Chisso Corp., Japan; Chisso Petrochemical Corporation

SOURCE: Jpn. Kokai Tokkyo Koho, 82 pp.
CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004083853	A2	20040318	JP 2003-132016	2003 0509
PRIORITY APPLN. INFO.:			JP 2002-195619 A	2002 0704

OTHER SOURCE(S): MARPAT 140:278505
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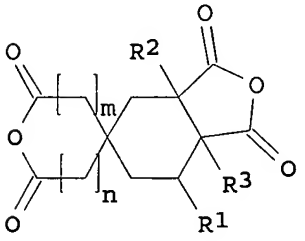

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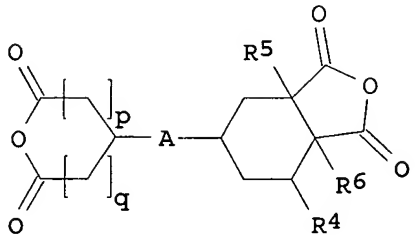
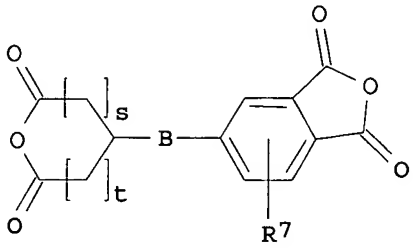


II



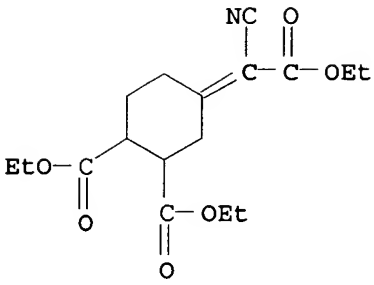
III

AB The anhydrides are represented by I, II, or III [R1-R7 = H, organic group; m, n, p, q, s, t = 0 or ≥1 (m = n ≠ 0; p = q ≠ 0; s = t ≠ 0); A, B = single bond, (O-substituted) alkylene]. The title polymers prepared from the anhydrides are further claimed. The alignment layers prepared from varnishes of the polymers show excellent stability of pretilt angle to rubbing stress and heat treatment and contain minimized defects.

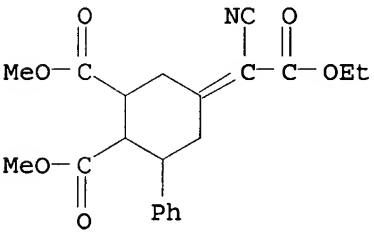
IT **672309-62-5P 672309-65-8P**
(novel asym. anhydrides producing polymers for alignment layers with improved pretilt stability of LCD)

RN 672309-62-5 HCAPLUS

CN 1,2-Cyclohexanedicarboxylic acid, 4-(1-cyano-2-ethoxy-2-oxoethylidene)-, diethyl ester (9CI) (CA INDEX NAME)



RN 672309-65-8 HCAPLUS
CN 1,2-Cyclohexanedicarboxylic acid, 5-(1-cyano-2-ethoxy-2-oxoethylidene)-3-phenyl-, dimethyl ester (9CI) (CA INDEX NAME)



IC ICM C08G073-10
ICS C07D307-89; C07D493-04; G02F001-1337
CC 74-13 (Radiation Chemistry, Photochemistry, and **Photographic** and Other Reprographic Processes)
Section cross-reference(s): 35, 38
IT **672309-62-5P** 672309-63-6P 672309-64-7P
672309-65-8P 672309-66-9P 672309-67-0P 672309-68-1P
672309-69-2P 672309-70-5P 672309-71-6P 672309-72-7P
672309-73-8P 672309-74-9P 672309-75-0P
(novel asym. anhydrides producing polymers for alignment layers with improved pretilt stability of LCD)

L49 ANSWER 4 OF 20 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2003:610247 HCAPLUS
DOCUMENT NUMBER: 139:164792
TITLE: Preparation of (1-aminomethyl-1-cycloalkyl)acetic acid derivatives and 4-aminobutanoic acid derivatives as alpha 2 delta ligands to treat tinnitus
INVENTOR(S): Dooley, David James; Wustrow, David Juergen
PATENT ASSIGNEE(S): Warner-Lambert Company LLC, USA
SOURCE: PCT Int. Appl., 225 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003063845	A1	20030807	WO 2003-IB232	

2003
0120

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

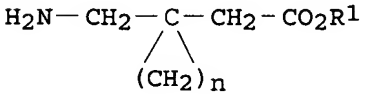
CA 2474000	AA	20030807	CA 2003-2474000	2003 0120
EP 1469841	A1	20041027	EP 2003-700417	2003 0120
BR 2003007411	A	20041207	BR 2003-7411	2003 0120
JP 2005521664	T2	20050721	JP 2003-563539	2003 0120
US 2003176504	A1	20030918	US 2003-353367	2003 0129
ZA 2004003069	A	20050422	ZA 2004-3069	2004 0422

EP 1469841: R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK

PRIORITY APPLN. INFO.:			US 2002-353632P	P 2002 0131
			WO 2003-IB232	W 2003 0120

OTHER SOURCE(S): MARPAT 139:164792

GI



I

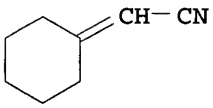
AB The invention relates to a method of treating tinnitus by administering an α2δ [α2δ subunit of presynaptic P/Q-type voltage-sensitive Ca2+ channels (VSCC)] ligand such as, for example, a compound of formula (I; R1 = H,

straight or branched lower alkyl; n = an integer of 4-6) or γ-aminobutyric acid derivs. represented by formula H2NCH(R3)CR1R2CH2CO2H [R1 = straight or branched unsubstituted C1-6 alkyl, unsubstituted Ph, unsubstituted C3-6 cycloalkyl; R2 = H, Me; R3 = H, Me, CO2H] and pharmaceutically acceptable salts thereof. Thus, NaH (60% dispersion, 2.4 g, 65 mmol) was washed with hexane, suspended in 60 mL dimethoxyethane, slowly treated with tri-Et phosphonoacetate over 5 min under ice-cooling in ice water bath was slowly added, stirred for 15 min at 0°, treated with a solution of 3-methyl-1-pentanal (6.5 g, 65 mmol) 20 mL in methoxyethane, and refluxed overnight to give, after workup, Et 61% 5-methyl-2-heptenoate (II). II 6.75, DBU 6.0, and MeNO2 21.97 g were stirred in 80 mL MeCN overnight under N to give, after workup, 42% Et 5-methyl-3-nitromethylheptanoate (III). III (3.6 g) was hydrogenated in the presence of 20% Pd-C in ethanol to give Et 3-aminomethyl-5-methylheptanoate which was refluxed in 30 mL 6 N aqueous HCl overnight to give, after purification on a column of Dowex 50WX8-100 ion exchange resin, 630 mg 3-aminomethyl-5-methylheptanoic acid. A tablet, a **coated** tablet, in injection vial, and a suppository formulation, e.g. a tablet containing 3-[(1-aminomethylcyclohexyl)methyl]-4H-[1,2,4]oxdiazol-5-one hydrochloride, were prepared

IT **4435-18-1P**, Cyclohexylideneacetonitrile
(intermediate; preparation of (1-aminomethylcycloalkyl)acetic acid derivs. and 4-aminobutanoic acid derivs. as alpha 2 delta ligands for treating tinnitus)

RN 4435-18-1 HCAPLUS

CN Acetonitrile, cyclohexylidene- (9CI) (CA INDEX NAME)



IC ICM A61K031-00
ICS A61P027-16; A61K031-13; A61K031-131; A61K031-137; A61K031-4245; A61K031-41; A61K031-662; A61K031-18; A61K031-443

CC 28-10 (Heterocyclic Compounds (More Than One Hetero Atom))
Section cross-reference(s): 23, 24, 25, 63

IT 1730-89-8P, (S)-4-Methylhexanoic acid **4435-18-1P**, Cyclohexylideneacetonitrile 15877-57-3P, 3-Methyl-1-pentanal 40482-40-4P, (S)-4-Methylheptanoic acid 52745-93-4P, (R)-4-Methylhexanoic acid 53353-03-0P, (R)-2,6-Dimethyloct-2-ene 53657-15-1P, (S)-4-Isopropyldihydrofuran-2-one 60711-13-9P, (S)-2,6-Dimethyloct-2-ene 85539-59-9P, 1-Benzyl-4-iodomethylpyrrolidin-2-one 96449-69-3P, 1-Benzyl-4-hydroxymethylpyrrolidin-2-one 96449-70-6P, 4-Hydroxymethyl-1-(4-methoxybenzyl)pyrrolidin-2-one 106367-47-9P, 2-Cyano-4-methyl-2-pentenoic acid methyl ester 115109-01-8P, (R)-4-Methylheptanoic acid 124918-65-6P, (R)-4-Methylnonanoic acid 124918-66-7P, (S)-4-Methylnonanoic acid 128342-71-2P, (R)-4-Methyloctanoic acid 149505-71-5P, 1-(4-Methoxybenzyl)-5-oxopyrrolidine-3-carboxylic acid methyl ester 157422-39-4P 178871-95-9P, (S)-2-Benzyl-3-methylbutan-1-ol 181289-09-8P, 4-Isobutyldihydrofuran-2-one 188641-35-2P, (4S)-4-Hydroxymethyl-1-[(1S)-1-phenylethyl]pyrrolidin-2-one 194031-58-8P 208124-73-6P, (4S)-4-Iodomethyl-1-[(1S)-1-phenylethyl]pyrrolidin-2-

one 208836-23-1P, (S)-2,6-Dimethylnon-2-ene 227626-55-3P 227626-57-5P 227626-58-6P, 1-(1H-Tetrazol-5-ylmethyl)cyclohexanecarbonitrile 227626-60-0P, [1-(tert-Butoxycarbonylaminomethyl)cyclohexyl]acetic acid 227626-61-1P, [[1-(Carbamoylmethyl)cyclohexyl]methyl]carbamic acid tert-butyl ester 227626-62-2P, [[1-(Cyanomethyl)cyclohexyl]methyl]carbamic acid tert-butyl ester 227626-63-3P 227626-65-5P, [[1-(5-Oxo-4,5-dihydro-[1,2,4]oxadiazol-3-ylmethyl)cyclohexyl]methyl]carbamic acid tert-butyl ester 227626-66-6P, [[1-(5-Thioxo-4,5-dihydro-[1,2,4]oxadiazol-3-ylmethyl)cyclohexyl]methyl]carbamic acid tert-butyl ester 227626-67-7P, 9-(1H-Tetrazol-5-ylmethyl)bicyclo[3.3.1]nonane-9-carbonitrile 227626-68-8P, trans-Cyano-(3,4-dimethylcyclopentylidene)acetic acid ethyl ester 227626-69-9P 227626-70-2P 227626-71-3P, 2-(1H-Tetrazol-5-ylmethyl)adamantane-2-carbonitrile 228104-42-5P, [2-[(2-Cyanoethylcarbamoyl)methyl]-4-methylpentyl]carbamic acid tert-butyl ester 228104-43-6P, [4-Methyl-2-[1-(2-cyanoethyl)tetrazol-5-ylmethyl]pentyl]carbamic acid tert-butyl ester 228104-44-7P, [4-Methyl-2-(1H-tetrazol-5-ylmethyl)pentyl]carbamic acid tert-butyl ester 228104-52-7P 282535-36-8P, 4-Iodomethyl-1-(4-methoxybenzyl)pyrrolidin-2-one 313652-73-2P, Ethyl 5-methyl-2-heptenoate 313652-74-3P, Ethyl 5-methyl-3-nitromethylheptanoate 313652-75-4P 313652-76-5P 313652-77-6P 313652-78-7P, (3R,4S)-3-Hydroxymethyl-4,5-dimethylhexanoic acid tert-butyl ester 313652-79-8P 313652-81-2P, (3R,4S)-3-Azidomethyl-4,5-dimethylhexanoic acid tert-butyl ester 313652-83-4P, 1-Benzyl-4-(2-methylpentyl)pyrrolidin-2-one 313652-85-6P, 4-(2-Methylpentyl)pyrrolidin-2-one 313652-88-9P, 4-(2,4-Dimethylpentyl)-1-(4-methoxybenzyl)pyrrolidin-2-one 313652-90-3P, 4-(2,4-Dimethylpentyl)pyrrolidin-2-one 313652-92-5P 313652-93-6P 313652-95-8P 313652-96-9P 313652-97-0P 313652-98-1P 313653-00-8P, 2-Methyl-2-[[(3S)-5-oxo-1-[(1S)-1-phenylethyl]pyrrolidin-3-yl]methyl]malonic acid dimethyl ester 313653-01-9P 313653-02-0P 313653-03-1P 313653-04-2P 313653-06-4P 313653-07-5P 313653-09-7P, (4R,5S)-4-Methyl-3-[(4R)-4-methylheptanoyl]-5-phenyloxazolidin-2-one 313653-10-0P, (3S,5R)-5-Methyl-3-[[(4R,5S)-4-methyl-2-oxo-5-phenyloxazolidin-3-yl]carbonyl]octanoic acid tert-butyl ester 313653-11-1P 313653-12-2P, (3S,5R)-3-Hydroxymethyl-5-methyloctanoic acid tert-butyl ester 313653-13-3P 313653-14-4P 313653-16-6P, Methanesulfonic acid (S)-3,7-dimethyloct-6-enyl ester 313653-17-7P, (4R,5S)-4-Methyl-3-[(4R)-4-methylhexanoyl]-5-phenyloxazolidin-2-one 313653-18-8P, (3S,5R)-5-Methyl-3-[1-((4R,5S)-4-methyl-2-oxo-5-phenyloxazolidin-3-yl)methanoyl]heptanoic acid tert-butyl ester 313653-19-9P 313653-20-2P, (3S,5R)-3-Hydroxymethyl-5-methylheptanoic acid tert-butyl ester 313653-21-3P 313653-22-4P, (3S,5R)-3-Azidomethyl-5-methylheptanoic acid tert-butyl ester 313653-23-5P, (4R,5S)-4-Methyl-3-[(4S)-4-methylheptanoyl]-5-phenyloxazolidin-2-one 313653-24-6P, (3S,5S)-5-Methyl-3-[[(4R,5S)-4-methyl-2-oxo-5-phenyloxazolidin-3-yl]carbonyl]octanoic acid tert-butyl ester 313653-25-7P, (3S,5S)-3-Hydroxymethyl-5-methyloctanoic acid tert-butyl ester 313653-26-8P 313653-28-0P, (3S,5S)-3-Aminomethyl-5-methyloctanoic acid tert-butyl ester 313653-30-4P, (4R,5S)-4-Methyl-3-[(4S)-4-methylhexanoyl]-5-phenyloxazolidin-2-one 313653-31-5P, (3S,5S)-5-Methyl-3-[[(4R,5S)-4-methyl-2-oxo-5-phenyloxazolidin-3-yl]carbonyl]heptanoic acid tert-butyl ester 313653-32-6P, (3S,5S)-3-Hydroxymethyl-5-methylheptanoic acid tert-butyl ester

313653-33-7P 313653-34-8P, (3S,5S)-3-Azidomethyl-5-methylheptanoic acid tert-butyl ester 313653-35-9P, (3S,5S)-3-Aminomethyl-5-methylheptanoic acid tert-butyl ester 313653-37-1P, (4R,5S)-4-Methyl-3-[(4R)-4-methyloctanoyl]-5-phenyloxazolidin-2-one 313653-38-2P 313653-39-3P 313653-40-6P, (3S,5R)-3-Hydroxymethyl-5-methylnonanoic acid tert-butyl ester 313653-41-7P 313653-42-8P, (3S,5R)-3-Azidomethyl-5-methylnonanoic acid tert-butyl ester 313653-48-4P, (R)-2,6-Dimethylundec-2-ene 313653-49-5P 313653-50-8P 313653-51-9P 313653-52-0P, (3S,5R)-3-Hydroxymethyl-5-methyldecanoic acid tert-butyl ester 313653-53-1P 313653-54-2P, (3S,5R)-3-Azidomethyl-5-methyldecanoic acid tert-butyl ester 313653-55-3P, (3S,5R)-3-Aminomethyl-5-methyldecanoic acid tert-butyl ester 313653-56-4P, (S)-2,6-Dimethylundec-2-ene 313653-57-5P, (4R,5S)-4-Methyl-3-[(4S)-4-methylnonanoyl]-5-phenyloxazolidin-2-one 313653-58-6P, (3S,5S)-5-Methyl-3-[[(4R,5S)-4-methyl-2-oxo-5-phenyloxazolidin-3-yl]carbonyl]decanoic acid tert-butyl ester 313653-59-7P 313653-60-0P, (3S,5S)-3-Hydroxymethyl-5-methyldecanoic acid tert-butyl ester 313653-61-1P 313653-62-2P, (3S,5S)-3-Azidomethyl-5-methyldecanoic acid tert-butyl ester 313653-63-3P, (3S,5S)-3-Aminomethyl-5-methyldecanoic acid tert-butyl ester 313653-65-5P, Acetic acid (S)-2-benzyl-3-methylbutyl ester 313653-66-6P, (3R,4R)-3-Benzyl-4-isopropyldihydrofuran-2-one 313653-67-7P, (2R,3R)-2-Benzyl-3-bromomethyl-4-methylpentanoic acid ethyl ester 313653-68-8P, (2R,3R)-2-Benzyl-3,4-dimethylpentanoic acid ethyl ester 313653-69-9P, Acetic acid (2R,3R)-2-benzyl-3,4-dimethylpentyl ester 313653-70-2P, (4R)-4-((1R)-1,2-Dimethylpropyl)dihydrofuran-2-one 313653-71-3P, (3R,4R)-3-Bromomethyl-4,5-dimethylhexanoic acid ethyl ester 313653-72-4P, (3R,4R)-3-Azidomethyl-4,5-dimethylhexanoic acid ethyl ester 313653-73-5P, 2-Cyano-3-isopropylhexanoic acid methyl ester 313653-74-6P 313653-75-7P, 3-Cyano-4-isopropylheptanoic acid tert-butyl ester 313653-76-8P, 4-(1-Isopropylbutyl)-2-pyrrolidinone 577040-89-2P 577040-90-5P 577040-91-6P, (3R,4S)-3-Aminomethyl-4,5-dimethylhexanoic acid tert-butyl ester 577040-92-7P 577040-93-8P, (4S)-4-[(2R)-2-Methylpentyl]pyrrolidin-2-one 577040-94-9P, (3S,5R)-3-Aminomethyl-5-methyloctanoic acid tert-butyl ester 577040-95-0P, (4S)-4-[(2R)-2-Methylbutyl]pyrrolidin-2-one 577040-96-1P, (3S,5R)-3-Aminomethyl-5-methylheptanoic acid tert-butyl ester 577040-97-2P 577041-02-2P, (3S)-3-Acetoxymethyl-4-methylpentanoic acid 577041-08-8P, 3-Bromomethyl-3-isobutylpropionic acid ethyl ester 577041-09-9P 577041-10-2P 577041-11-3P

(intermediate; preparation of (1-aminomethylcycloalkyl)acetic acid derivs. and 4-aminobutanoic acid derivs. as alpha 2 delta ligands for treating tinnitus)

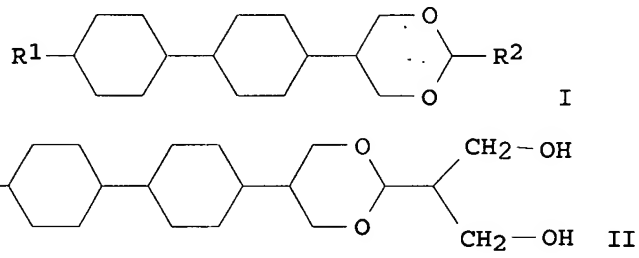
REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L49 ANSWER 5 OF 20 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:832517 HCAPLUS
DOCUMENT NUMBER: 137:343953
TITLE: Dicyclohexyl-1,3-dioxane and its preparation for nematic liquid crystal mixture suitable for liquid crystal display
INVENTOR(S): Poetsch, Eike; Binder, Werner; Heckmeier,

Michael; Tarumi, Kazuaki; Krause, Joachim
PATENT ASSIGNEE(S): Merck Patent Gmbh, Germany
SOURCE: Ger. Offen., 50 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 10217771	A1	20021031	DE 2002-10217771	20020422
PRIORITY APPLN. INFO.:			DE 2001-10119895 A1	20010424

OTHER SOURCE(S): MARPAT 137:343953
GI



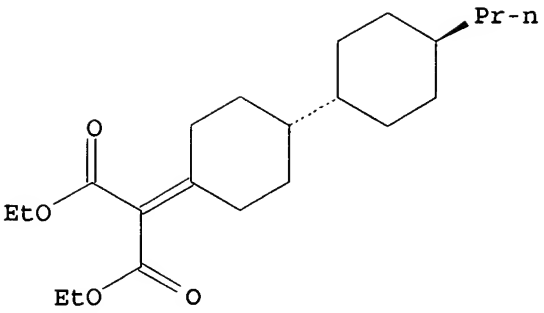
AB The invention relates to dicyclohexyl-1,3-dioxane represented by I (R1 = H, halo, CN, C1-12-alkyl; R2 = H, C1-12-alkyl, substituted phenyl), and its preparation from dicyclohexylpropane-1,3-diol represented by II (R1 = H, halo, CN, C1-12-alkyl) and aldehyde R2-CHO (R2 = H, C1-12-alkyl, substituted phenyl). Also the invention relates to the use of the dicyclohexyl-1,3-dioxane as components of liquid crystalline mixts. suitable for the liquid crystal display. The liquid crystal mixture containing the dicyclohexyl-1,3-dioxane shows higher clear point.

IT **473917-13-4P**
(preparation of dicyclohexyl-1,3-dioxane for nematic liquid crystal mixture suitable for liquid crystal display)

RN 473917-13-4 HCAPLUS

CN Propanedioic acid, (trans-4'-propyl[1,1'-bicyclohexyl]-4-ylidene)-, diethyl ester (9CI) (CA INDEX NAME)

Relative stereochemistry.



IC ICM C07D319-06
ICS C07C031-27; C07C031-44; C07B041-02; C07C069-608; C07C067-343; C07C255-00; C07C033-00; C09K019-34; G09F009-35; G02F001-137
CC 74-13 (Radiation Chemistry, Photochemistry, and **Photographic** and Other Reprographic Processes)
Section cross-reference(s): 28, 75
IT 188660-23-3P 188660-24-4P **473917-13-4P**
(preparation of dicyclohexyl-1,3-dioxane for nematic liquid crystal mixture suitable for liquid crystal display)

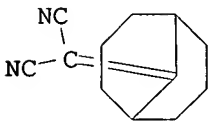
L49 ANSWER 6 OF 20 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:278375 HCAPLUS
DOCUMENT NUMBER: 137:101282
TITLE: Photochemistry of 1,1-dicyano-1-alkenes General aspects
AUTHOR(S): Leitich, Johannes; Ritter-Thomas, Ursula; Heise, Ingeborg; Tsay, Yi-Hung; Rust, Jurgen
CORPORATE SOURCE: Max-Planck-Institut fur Strahlenchemie, Mulheim a.d. Ruhr, D-45413, Germany
SOURCE: Journal of Photochemistry and Photobiology, A: Chemistry (2002), 147(3), 157-175
CODEN: JPPCEJ; ISSN: 1010-6030
PUBLISHER: Elsevier Science B.V.
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The chemical behavior of 32 selected 1,1-dicyano-1-alkenes (DCNA) that are devoid of addnl. unsatn. and of addnl. hetero-atoms was studied upon direct excitation by continuous irradiation with light of 253.7 nm wavelength into the long-wavelength flank of their longest wavelength UV absorption band in solvents ranging from cyclohexane to methanol. The predominant reaction products in the majority of cases were 1,1-dicyano-cyclopropanes formed via 1,2-migration of either hydrogen or methyl/alkyl from C-3 to C-2 (olefin to cyclopropane photorearrangement, OCPR). Photoreactions competing with OCPR were hydrogen atom abstraction from solvent by the C-2 of the DCNA and, in characteristically favorable cases only, 3,4-C-C bond cleavage. In cases of low OCPR quantum yields, hydrogen abstraction from solvent was dominant in cyclohexane or methanol but it could be suppressed by the choice of a solvent (methylene chloride, acetonitrile, tert-butanol) that more strongly resisted hydrogen abstraction. Further minor byproducts were isomeric DCNA and 1,1-dicyano-3-alkenes. No carbene-derived products were observed Supplementary expts. included quenching expts. and an investigation of the DCNA triplet state. The DCNA triplet state was formed at only ca. 1% on direct irradiation but it could be efficiently produced by sensitization with benzophenone;

in the absence of olefins as inter- or intramol. substrates, it was fairly unreactive. All observed reactions occur from the lowest excited DCNA singlet state. According to the quenching expts., this state is short-lived as compared to diffusional movements. Other than OCPR which appears to be due to cationic reactivity at C-2 exhibited by the perpendicular geometry of the excited double bond, hydrogen abstraction and 3,4-C-C bond cleavage appear to be due to radical reactivity at C-2 exhibited by geometries of the excited double bond that are intermediate between planar and perpendicular and are due to vibration about the perpendicular conformation.

IT **74764-32-2P**
(photoreactions of 1,1-dicyano-1-alkenes from lowest excited singlet state and investigation of their excited triplet state)

RN 74764-32-2 HCAPLUS

CN Propanedinitrile, bicyclo[3.3.1]non-9-ylidene- (9CI) (CA INDEX NAME)



CC 74-1 (Radiation Chemistry, Photochemistry, and **Photographic** and Other Reprographic Processes)
Section cross-reference(s): 22

IT **74764-32-2P** 442661-68-9P 442661-69-0P 442661-70-3P 442661-71-4P 442661-73-6P 442661-74-7P
(photoreactions of 1,1-dicyano-1-alkenes from lowest excited singlet state and investigation of their excited triplet state)

REFERENCE COUNT: 65 THERE ARE 65 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L49 ANSWER 7 OF 20 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:251867 HCAPLUS
DOCUMENT NUMBER: 136:286560
TITLE: 2,4-dicyanoglutarimides negative charge control agents for electrostatographic toners and developers
INVENTOR(S): Wilson, John C.; McGrath, Gretchen S.; Srinivsan, Satyanarayan A.
PATENT ASSIGNEE(S): Eastman Kodak Company, USA
SOURCE: U.S., 17 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6365311	B1	20020402	US 2000-661605	2000 0914

PRIORITY APPLN. INFO.: US 2000-661605 2000

0914

OTHER SOURCE(S): MARPAT 136:286560
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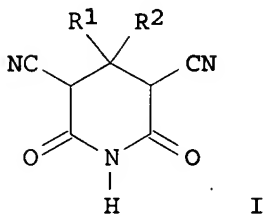
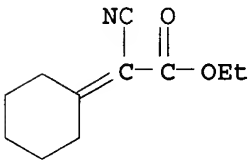


I

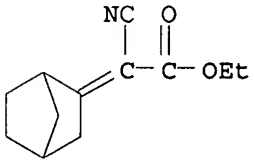
AB The invention provides an electrophotog. toner having polymeric binder and 2,4-dicyanoglutarimide neg. charge control agents represented by the following formula I (R1, R2 = H, C1-18-alkyl, C6-14-aryl, heterocyclic ring system; or R1 and R2 form a ring system, wherein the substituted moieties comprise at least one substituent selected from halo, hydroxyl, alkyl, alkoxy, thioalkyl, amino, nitro, aryl, unsatd. hydrocarbon groups, and as further defined in the claims). The object of the invention is to provide neg. charge control agents for electrostatog. toners and developers to keep toner charge fairly constant over the life of the developer.

IT **6802-76-2P 196618-67-4P**
(in synthesis of charge control agent for electrostatog. toner and developer)

RN 6802-76-2 HCAPLUS
CN Acetic acid, cyanocyclohexylidene-, ethyl ester (9CI) (CA INDEX NAME)



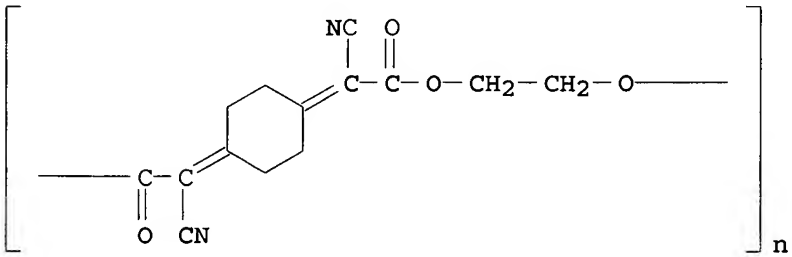
RN 196618-67-4 HCAPLUS
CN Acetic acid, bicyclo[2.2.1]hept-2-ylidenecyano-, ethyl ester (9CI) (CA INDEX NAME)



IC ICM G03G009-097
INCL 430108200
CC 74-3 (Radiation Chemistry, Photochemistry, and

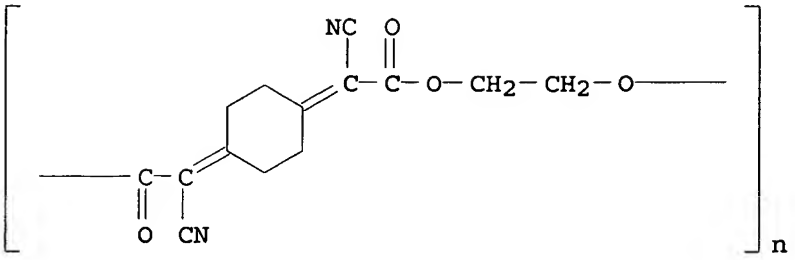
Photographic and Other Reprographic Processes)
IT 5232-99-5P 5407-83-0P **6802-76-2P** 10425-82-8P
13455-81-7P 14003-25-9P 14442-48-9P 14442-66-1P
14505-28-3P 14702-85-3P 20620-38-6P 25694-16-0P
80534-78-7P 107516-59-6P **196618-67-4P** 405889-68-1P
405889-69-2P
(in synthesis of charge control agent for electrostatog. toner and developer)
REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L49 ANSWER 8 OF 20 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1998:256838 HCAPLUS
DOCUMENT NUMBER: 128:308833
TITLE: Synthesis of polymers with semiconductor properties
AUTHOR(S): Durgaryan, A. A.; Arakelyan, R. A.; Durgaryan, N. A.; Terlemezyan, Zh. N.
CORPORATE SOURCE: Yerevan Gos. Univ., Yerevan, Armenia
SOURCE: Khimicheskii Zhurnal Armenii (1996), 49(1-3), 170-173
CODEN: KZARF3
PUBLISHER: Izdatel'stvo Gitutyun NAN Respubliki Armenii
DOCUMENT TYPE: Journal
LANGUAGE: Russian
AB Polymerization of 1,2-bis(cyanoacetoxy)ethane with 1,4-cyclohexadione followed by dehydrogenation led to formation of a quinone group-containing polymer. This polymer exhibited sp. volume elec. resistance at 25°C 4.5 + 109 Ω-cm and activation energy of elec. conductivity 0.45 eV. Polymerization of γ,γ-dicyanopimelonitrile gave a polymer with sp. volume elec. resistance 2.5 + 107 Ω-cm and activation energy of elec. conductivity 1.97 eV.
IT **206538-26-3P**, 1,4-Cyclohexadione-ethylene bis(cyanoacetate) copolymer, SRU
(intermediate reaction product; synthesis of polymers with semiconductor properties)
RN 206538-26-3 HCAPLUS
CN Poly[oxy-1,2-ethanediyloxy(2-cyano-1-oxo-1-ethanyl-2-ylidene)-1,4-cyclohexanediylidene(1-cyano-2-oxo-2-ethanyl-1-ylidene)] (9CI) (CA INDEX NAME)



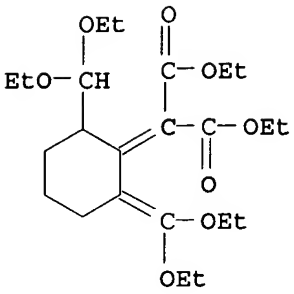
IT **206538-26-3DP**, dehydrogenated
(synthesis of polymers with semiconductor properties)
RN 206538-26-3 HCAPLUS
CN Poly[oxy-1,2-ethanediyloxy(2-cyano-1-oxo-1-ethanyl-2-ylidene)-1,4-cyclohexanediylidene(1-cyano-2-oxo-2-ethanyl-1-ylidene)] (9CI)

(CA INDEX NAME)



CC 35-5 (Chemistry of Synthetic High Polymers)
Section cross-reference(s): 36, 76
IT 206538-25-2P, 1,4-Cyclohexadione-ethylene bis(cyanoacetate) copolymer **206538-26-3P**, 1,4-Cyclohexadione-ethylene bis(cyanoacetate) copolymer, SRU
(intermediate reaction product; synthesis of polymers with semiconductor properties)
IT 206538-25-2DP, dehydrogenated **206538-26-3DP**, dehydrogenated 206538-28-5P
(synthesis of polymers with semiconductor properties)

L49 ANSWER 9 OF 20 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1998:27283 HCAPLUS
DOCUMENT NUMBER: 128:141995
TITLE: New approaches to the synthesis of substituted infra chromatic dyes
AUTHOR(S): Kharitonova, O. V.; Alieva, Z. M.; Arshava, B. M.
CORPORATE SOURCE: Mosk. Gos. Akad. Tonkoi Khim. Tekhnol., Moscow, Russia
SOURCE: Zhurnal Nauchnoi i Prikladnoi Fotografii (1997), 42(3), 56-62
CODEN: ZNPFEK; ISSN: 0869-6144
PUBLISHER: Nauka
DOCUMENT TYPE: Journal
LANGUAGE: Russian
AB Enol-silyl ethers, 4,4-diethoxy-2-trimethylsilyloxy-1-butene and 2-trimethylsilyloxy-(3-diethoxymethyl)-1-cyclohexene, were prepared by silylation of 4,4-diethoxy-2-butanone or 2-diethoxymethylcyclohexanone with trimethylchlorosilane-NaI-triethylamine mixture in mixed pentane-acetonitrile solvent at -5 - -10°. Reaction mixture treatment with tri-Et orthoformate in the presence of ZnCl2 catalyst yielded 1,1,5,5-tetraethoxy-3-pentanone and 2,6-bis(diethoxymethyl)cyclohexanone. The reaction of those β,β'-ketodiacetals with Grignard reactive and organozinc compds. lead to 1,1,5,5-tetraethoxy-3-alkyl(or: carbethoxymethyl)-3-pentanols. All the compds. were characterized by IR and NMR spectroscopy.
IT **202351-86-8P**
(approaches to the synthesis of chain-substituted cyanine dyes)
RN 202351-86-8 HCAPLUS
CN Propanedioic acid, [2-(diethoxymethyl)-6-(diethoxymethylene)cyclohexylidene]-, diethyl ester (9CI) (CA INDEX NAME)



CC 41-9 (Dyes, Organic Pigments, Fluorescent Brighteners, and **Photographic** Sensitizers)

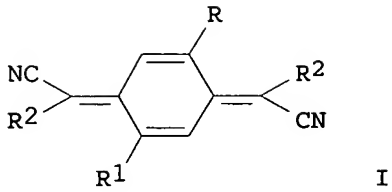
IT 202351-78-8P 202351-79-9P 202351-80-2P 202351-81-3P
202351-82-4P 202351-83-5P 202351-84-6P 202351-85-7P
202351-86-8P
(approaches to the synthesis of chain-substituted cyanine dyes)

L49 ANSWER 10 OF 20 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1996:524382 HCAPLUS
DOCUMENT NUMBER: 125:248819
TITLE: Electroconductive polymers from unsaturated derivative of TTF, TCNQ and DCQDI (dicyanoquinondiimine) monomers and preparation of monomers therefor
INVENTOR(S): Castellucci, Nicholas T.
PATENT ASSIGNEE(S): Northrop Grumman Corporation, USA
SOURCE: U.S., 7 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5545703	A	19960813	US 1994-332980	1994 1101
US 5834619	A	19981110	US 1996-678732	1996 0711
US 5840935	A	19981124	US 1997-835689	1997 0410

PRIORITY APPLN. INFO.: US 1994-332980 A3 1994 1101
US 1996-678732 A3 1996 0717

OTHER SOURCE(S): MARPAT 125:248819
GI



I

AB Thermoplastic electroconductive polymer is prepared from homopolymer blends or copolymer of equimolar amts. of an vinyl-/allyl-substituted tetrathiafulvalene and cyanoquinodimethane I (R = CH.tplbond.C-, CH2=CH- and CH2CH-CH2-; R1 = H, R; R2 = H, CN) or a vinyl-/allyl-substituted dicyanoquinondiimine. Thus, 2-allyl tetrathiafulvalene, prepared by reaction of tetrathiafulvalene and Bu lithium in THF at -80° and then with 3-bromo-1-propene, can be homopolymd. in the presence of an azo or peroxide catalyst in N2, or copolymd. with I or the substituted dicyanoquinondiimines.

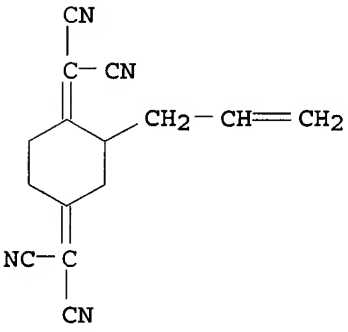
IT **182014-97-7P**
(preparation of; in preparation of electroconductive polymers from unsatd. derivs. of TTF, TCNQ and dicyanoquinondiimine as monomers)

RN 182014-97-7 HCAPLUS

CN Propanedinitrile, 2,2'-[2-(2-propenyl)-1,4-cyclohexanediylidene]bis-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 182014-95-5
CMF C15 H12 N4



IC ICM C08F228-06
INCL 526256000
CC 35-4 (Chemistry of Synthetic High Polymers)
Section cross-reference(s): 76

IT **182014-97-7P** 182058-25-9P
(preparation of; in preparation of electroconductive polymers from unsatd. derivs. of TTF, TCNQ and dicyanoquinondiimine as monomers)

L49 ANSWER 11 OF 20 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1996:320730 HCAPLUS

DOCUMENT NUMBER: 125:34738
TITLE: Influence of order in thin smectic polymer films on the structure at the surface
AUTHOR(S): Henn, G.; Stamm, M.; Poths, H.; Ruecker, M.; Rabe, J. P.
CORPORATE SOURCE: Max-Planck-Institut fuer Polymerforschung, Postfach 3148, Mainz, D-55021, Germany
SOURCE: Physica B: Condensed Matter (Amsterdam) (1996), 221(1-4), 174-184
CODEN: PHYBE3; ISSN: 0921-4526
PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Vertical and lateral structures of thin films (6-200 nm thick) of a combined liquid crystalline polymer with mesogenic groups in the main and side chains were investigated by X-ray reflectometry and scanning tunneling microscopy. The liquid crystalline polyester-polyether exhibits a cholesteric, a smectic C*, and a smectic A mesophase. Films prepared by spin-coating onto glass substrates were investigated as a function of temperature in the different mesophases. The main interest was focussed on the smectic C* phase, in which the polymer chains show different orientations depending on the film thickness. In films thicker than about 10 nm, chains are oriented perpendicular to the substrate due to interface effects. Film thickness constraints in thinner films force chains to lie predominantly flat on the substrate and films partially show dewetting. X-ray reflection was used for the determination of structural parameters like layer thickness, chain orientation, phase sequence, perturbations in the layered structure, and laterally averaged surface roughnesses, which partially depended on film thickness. Direct information about lateral surface structures on the nanometer length scale was obtained from scanning tunneling microscopy. In films thinner than about 10 nm after annealing, holes of height of the initial film thickness are observed In thicker films extended terraces are observed separated by steps of height of single layers. Defects in the layered structure are assumed to be responsible for the formation of such a surface structure. The surface profile could quant. be analyzed by a recent theor. treatment of edge dislocation in thin liquid crystalline films.

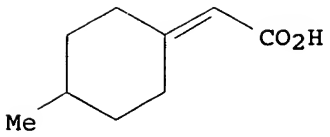
IT **135843-61-7**
(influence of order in thin smectic polymer films on the structure at the surface)

RN 135843-61-7 HCAPLUS

CN Propanedioic acid, [6-[4-[(4-hydroxyphenyl)-ONN-azoxy]phenoxy]hexyl]-, diethyl ester, (Z)-, polymer with (Z)-6,6'-[azoxybis(4,1-phenyleneoxy)]bis[1-hexanol], (4-methylcyclohexylidene)acetate (ester) (9CI) (CA INDEX NAME)

CM 1

CRN 77842-31-0
CMF C9 H14 O2



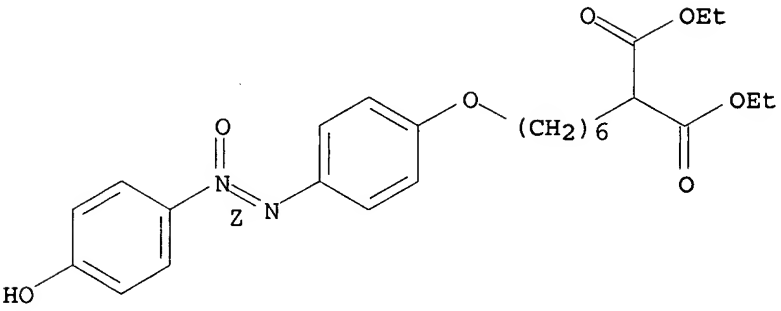
CM 2

CRN 200552-90-5
CMF (C25 H32 N2 O7 . C24 H34 N2 O5)x
CCI PMS

CM 3

CRN 200552-89-2
CMF C25 H32 N2 O7

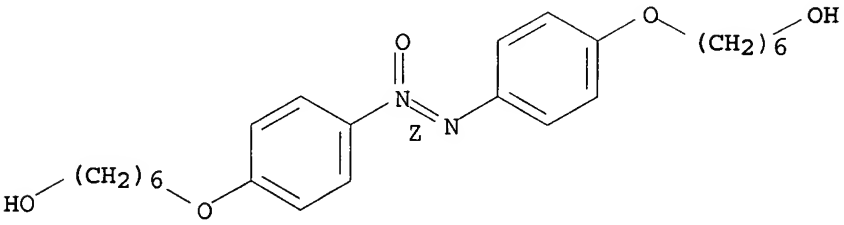
Double bond geometry as shown.



CM 4

CRN 114464-39-0
CMF C24 H34 N2 O5

Double bond geometry as shown.



CC 37-5 (Plastics Manufacture and Processing)
Section cross-reference(s): 75
IT **135843-61-7** 135843-64-0
(influence of order in thin smectic polymer films on the structure at the surface)

L49 ANSWER 12 OF 20 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1995:227730 HCAPLUS
DOCUMENT NUMBER: 122:106911
TITLE: Orientation and order in thin films of a combined liquid crystalline polymer
AUTHOR(S): Henn, Guido; Poths, Holger; Stamm, Manfred
CORPORATE SOURCE: Max-Planck-Institut fur Polymerforschung, Mainz, 55021, Germany
SOURCE: Polymers for Advanced Technologies (1994), 5(9), 582-5
CODEN: PADTE5; ISSN: 1042-7147
PUBLISHER: Wiley
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The order in thin films of a combined liquid crystalline polyester containing mesogenic groups in the main chain and in the side chain, separated by flexible spacers, was studied by x-ray reflection. Films of thicknesses of less than 200 nm on float glass were studied at various temps. The polymer with mesogenic groups in the main and side-chains exhibits smectic and cholesteric mesophases. Measurements in the smectic phases show a Bragg peak and smectic layers are oriented parallel to the substrate. The sample is thus macroscopically ordered by the influence of substrate and free surface. The film surface is smooth after spin-coating; surface roughness is typically 0.8 nm. First annealing of samples leads to a significant roughening of the free surface; roughness increases to 2.1 nm. Order, as a function of film thickness, depends on the interaction of the polymer with the substrate and free surface. These interactions give rise to a typical correlation length of perturbations in smectic ordering.

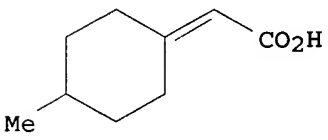
IT **135843-61-7**
(orientation and order in liquid crystal polyester with mesogenic groups in main and in side chain)

RN 135843-61-7 HCAPLUS

CN Propanedioic acid, [6-[4-[(4-hydroxyphenyl)-ONN-azoxy]phenoxy]hexyl]-, diethyl ester, (Z)-, polymer with (Z)-6,6'-[azoxybis(4,1-phenyleneoxy)]bis[1-hexanol], (4-methylcyclohexylidene)acetate (ester) (9CI) (CA INDEX NAME)

CM 1

CRN 77842-31-0
CMF C9 H14 O2



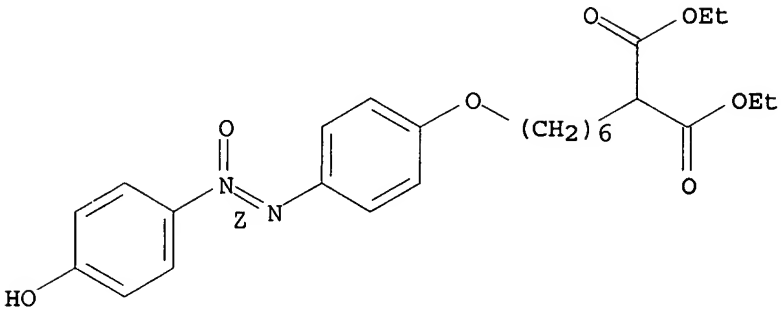
CM 2

CRN 200552-90-5
CMF (C25 H32 N2 O7 . C24 H34 N2 O5)x
CCI PMS

CM 3

CRN 200552-89-2
CMF C25 H32 N2 O7

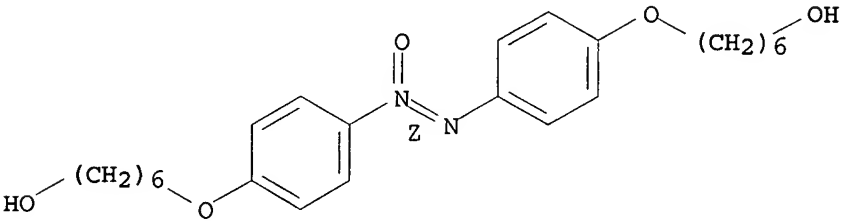
Double bond geometry as shown.



CM 4

CRN 114464-39-0
CMF C24 H34 N2 O5

Double bond geometry as shown.



CC 36-2 (Physical Properties of Synthetic High Polymers)
Section cross-reference(s): 75
IT **135843-61-7** 135843-64-0
(orientation and order in liquid crystal polyester with mesogenic groups in main and in side chain)

L49 ANSWER 13 OF 20 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1991:515219 HCAPLUS
DOCUMENT NUMBER: 115:115219
TITLE: Liquid crystal polymers with axial chirality
AUTHOR(S): Poths, H.; Zentel, R.; Vallerien, S. U.; Kremer, F.
CORPORATE SOURCE: Inst. Org. Chem., Univ. Mainz, Mainz, D-6500, Germany
SOURCE: Molecular Crystals and Liquid Crystals (1991), 203, 101-11
CODEN: MCLCA5; ISSN: 0026-8941
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Liquid-crystalline polymers with axial chirality, not due to a single asym. C atom, but due to a larger mol. fragment, were prepared They exhibited a cholesteric and chiral smectic C* phases. Dielec. spectroscopy showed strong ferroelec. properties in the chiral smectic C* phases of these polymers.

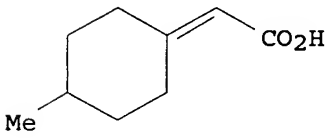
IT **135843-60-6P 135843-61-7P 135843-62-8P**
135843-63-9P
(liquid-crystalline, preparation and properties of)

RN 135843-60-6 HCAPLUS

CN 2-Propenoic acid, 6-[(4'-hydroxy[1,1'-biphenyl]-4-yl)oxy]hexyl ester, homopolymer, (4-methyl-1-cyclohexylidene)acetate (9CI) (CA INDEX NAME)

CM 1

CRN 77842-31-0
CMF C9 H14 O2

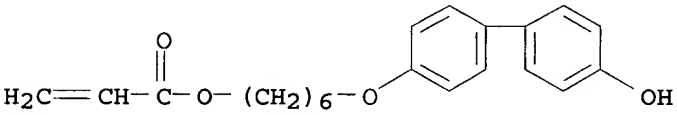


CM 2

CRN 178179-16-3
CMF (C21 H24 O4)x
CCI PMS

CM 3

CRN 139419-12-8
CMF C21 H24 O4

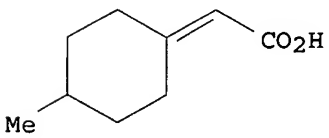


RN 135843-61-7 HCAPLUS

CN Propanedioic acid, [6-[4-[(4-hydroxyphenyl)-ONN-azoxy]phenoxy]hexyl]-, diethyl ester, (Z)-, polymer with (Z)-6,6'-[azoxybis(4,1-phenyleneoxy)]bis[1-hexanol], (4-methylcyclohexylidene)acetate (ester) (9CI) (CA INDEX NAME)

CM 1

CRN 77842-31-0
CMF C9 H14 O2



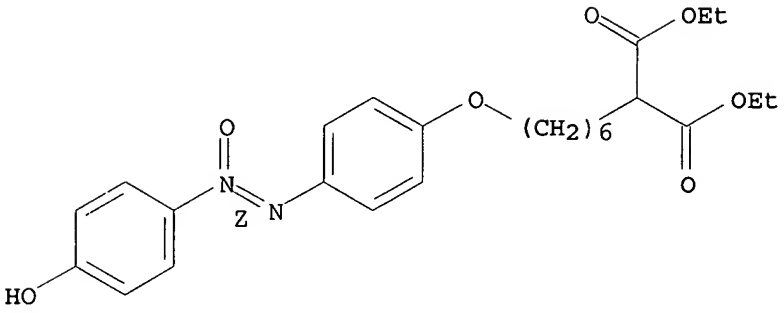
CM 2

CRN 200552-90-5
CMF (C25 H32 N2 O7 . C24 H34 N2 O5)x
CCI PMS

CM 3

CRN 200552-89-2
CMF C25 H32 N2 O7

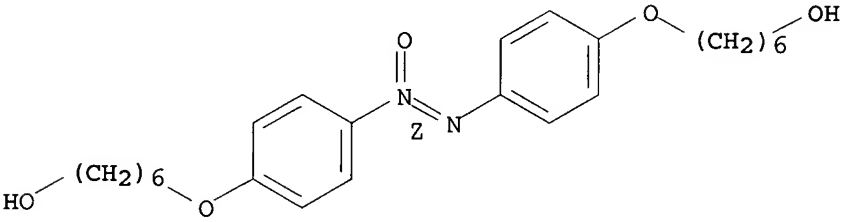
Double bond geometry as shown.



CM 4

CRN 114464-39-0
CMF C24 H34 N2 O5

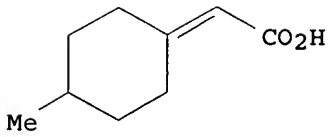
Double bond geometry as shown.



RN 135843-62-8 HCAPLUS
CN Propanedioic acid, [6-[4-[(4-hydroxyphenyl)-ONN-azoxy]phenoxy]hexyl]-, diethyl ester, (Z)-, polymer with (E)-6,6'-[azobis(4,1-phenyleneoxy)]bis[1-hexanol], (4-methylcyclohexylidene)acetate (9CI) (CA INDEX NAME)

CM 1

CRN 77842-31-0
CMF C9 H14 O2



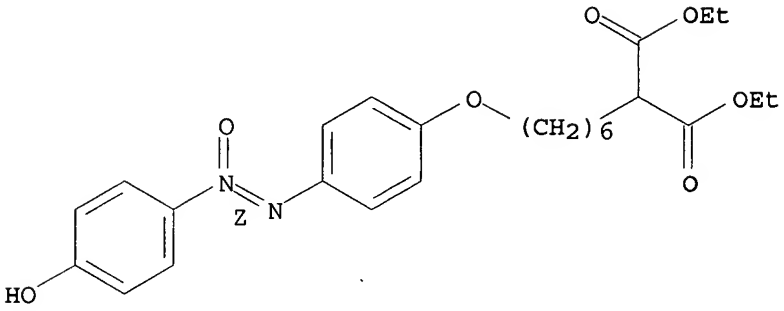
CM 2

CRN 200553-30-6
CMF (C25 H32 N2 O7 . C24 H34 N2 O4)x
CCI PMS

CM 3

CRN 200552-89-2
CMF C25 H32 N2 O7

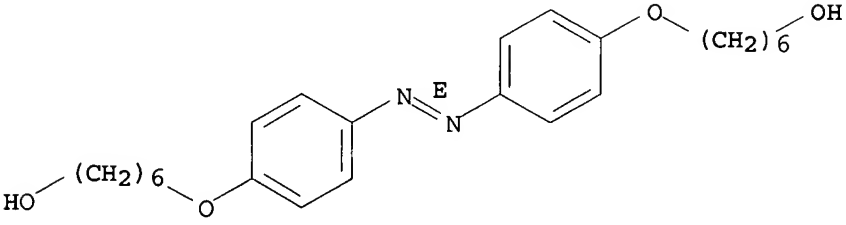
Double bond geometry as shown.



CM 4

CRN 109359-32-2
CMF C24 H34 N2 O4

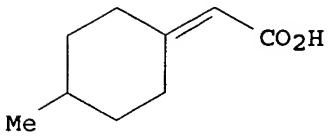
Double bond geometry as shown.



RN 135843-63-9 HCAPLUS
CN Propanedioic acid, [6-[(4'-hydroxy[1,1'-biphenyl]-4-yl)oxy]hexyl]-, diethyl ester, polymer with (Z)-6,6'-[azoxybis(4,1-phenyleneoxy)]bis[1-hexanol], (4-methylcyclohexylidene)acetate (ester) (9CI) (CA INDEX NAME)

CM 1

CRN 77842-31-0
CMF C9 H14 O2

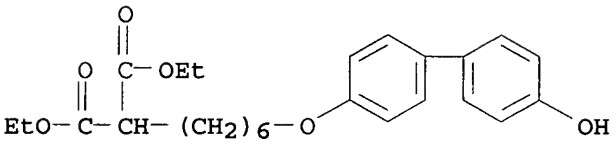


CM 2

CRN 136691-91-3
CMF (C25 H32 O6 . C24 H34 N2 O5)x
CCI PMS

CM 3

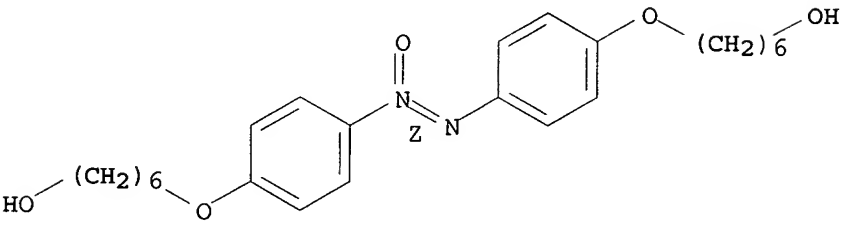
CRN 117823-20-8
CMF C25 H32 O6



CM 4

CRN 114464-39-0
CMF C24 H34 N2 O5

Double bond geometry as shown.



CC 35-8 (Chemistry of Synthetic High Polymers)
Section cross-reference(s): 75
IT **135843-60-6P 135843-61-7P 135843-62-8P**
135843-63-9P 135843-64-0P 135843-65-1P 135843-66-2P
135843-67-3P
(liquid-crystalline, preparation and properties of)

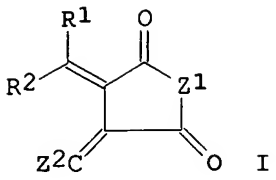
L49 ANSWER 14 OF 20 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1991:133084 HCAPLUS
DOCUMENT NUMBER: 114:133084

TITLE: Novel photoactive compounds, processes for their production and intermediates therefor
INVENTOR(S): Heller, Harry George; Whittall, John
PATENT ASSIGNEE(S): Traqson Ltd., UK
SOURCE: PCT Int. Appl., 65 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 8907597	A2	19890824	WO 1989-GB155	19890215
WO 8907597	A3	19890921		
W: AU, BB, BG, BR, DK, FI, HU, JP, KP, KR, LK, MC, MG, MW, NO, RO, SD, SU, US				
RW: AT, BE, BJ, CF, CG, CH, CM, DE, FR, GA, GB, IT, LU, ML, MR, NL, SE, SN, TD, TG				
AU 8932849	A1	19890906	AU 1989-32849	19890215
EP 334477	A2	19890927	EP 1989-301430	19890215
EP 334477	A3	19891227		
R: ES, GR				
ZA 8901160	A	19891025	ZA 1989-1160	19890215
EP 423127	A1	19910424	EP 1989-903517	19890215
R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
JP 03503528	T2	19910808	JP 1989-503221	19890215
CN 1037509	A	19891129	CN 1989-102517	19890218

PRIORITY APPLN. INFO.:		GB 1988-3881 A	19880219
		WO 1989-GB155 A	19890215

OTHER SOURCE(S): MARPAT 114:133084
GI



I

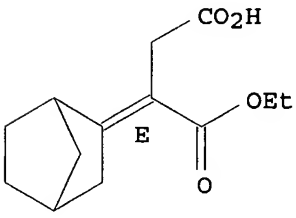
AB Photoactive compds. which show photochromic properties and can be used in the manufacture of image and data recording media and in display devices have the general formula I (Z1 = O or imido; R1 = 3-furyl, 3-thienyl, 3-pyrryl, 3-benzofuryl, or 3-benzothienyl in which the 3-furyl, 3-thienyl, and 3-pyrryl groups may b substituted in the 2- and/or 5-position; R2 = C1-20 alkyl, C3-12 cycloalkyl, C7-9 aralkyl, C6-14 aryl which may be substituted with ≥1 halogen, or C7-22 alkaryl; Z2C = a substituted or unsubstituted bridged polycyclic hydrocarbon residue containing 7-20 cations in a polycyclic system, the residue having a plane of asymmetry which is parallel to the plane which includes the single bonds extending from the C atom in the Z2C group and the anhydride or imide ring, any substituents on the bridged polycyclic hydrocarbon residue being selected from C1-4 alkyl groups, OH, and halogens).

IT **127833-13-0P 127833-14-1P 127833-15-2P 127833-16-3P**
(preparation and reaction of, in preparing photochromic bismethylenesuccinic anhydride derivs.)

RN 127833-13-0 HCAPLUS

CN Butanedioic acid, bicyclo[2.2.1]hept-2-ylidene-, 1-ethyl ester, (E)- (9CI) (CA INDEX NAME)

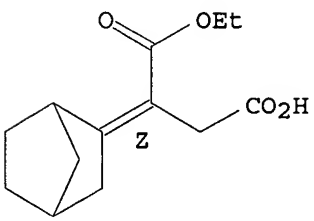
Double bond geometry as shown.



RN 127833-14-1 HCAPLUS

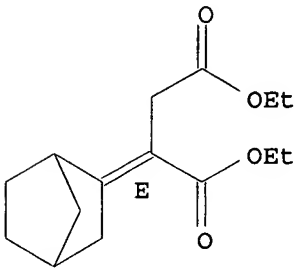
CN Butanedioic acid, bicyclo[2.2.1]hept-2-ylidene-, 1-ethyl ester, (Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



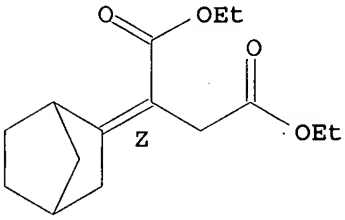
RN 127833-15-2 HCAPLUS
CN Butanedioic acid, bicyclo[2.2.1]hept-2-ylidene-, diethyl ester, (E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



RN 127833-16-3 HCAPLUS
CN Butanedioic acid, bicyclo[2.2.1]hept-2-ylidene-, diethyl ester, (Z)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.

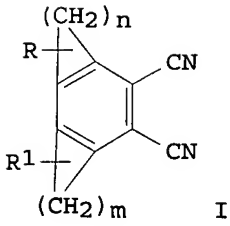


IC ICM C07D307-02
ICS C07D207-02; G03C001-733; C07D307-78; C07D409-06; C07D409-14; C07D405-06
CC 74-9 (Radiation Chemistry, Photochemistry, and **Photographic** and Other Reprographic Processes)
IT 6541-58-8P **127833-13-0P 127833-14-1P**
127833-15-2P 127833-16-3P 127833-25-4P
127833-26-5P 127833-27-6P 127833-28-7P 127833-33-4P
(preparation and reaction of, in preparing photochromic bismethylenesuccinic anhydride derivs.)

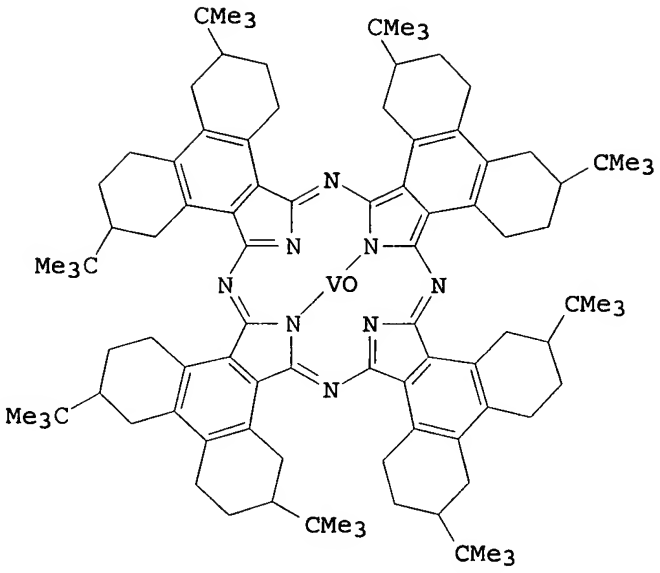
L49 ANSWER 15 OF 20 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1990:79437 HCAPLUS
DOCUMENT NUMBER: 112:79437
TITLE: Phthalonitriles as intermediates for organic solvent-soluble phthalocyanine dyes
INVENTOR(S): Nakatsuka, Masakatsu; Ito, Naoto; Enomoto, Tsuyoshi; Oguchi, Takahisa; Nishizawa, Isao
PATENT ASSIGNEE(S): Mitsui Toatsu Chemicals, Inc., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 01180865	A2	19890718	JP 1988-1349	19880108
JP 07094423	B4	19951011		
PRIORITY APPLN. INFO.:			JP 1988-1349	19880108

GI



I



IV

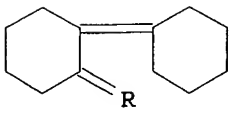
AB Phthalonitriles I (R, R1 = H, alkyl, aryl; m, n = 3-10), useful as intermediates for phthalocyanine dyes having good solubility in organic solvents and photochem. and chemical stability, are prepared Refluxing 4-tert-butylcyclohexanone with H3BO3 in xylene for 10 h with removal of H2O gave 91% 2-(4-tert-butylcyclohexylidene)-4-tert-butylcyclohexanone, which was refluxed with malononitrile and AcONH4 in AcOH for 8 h to give 97% [2-(4-tert-butylcyclohexylidene)-4-tert-butylcyclohexylidene]malonodinitrile (II). Treatment of II with concentrated H2SO4 at 0° to room temperature for 10 h gave 78% 9-amino-10-cyano-1,2,4,5,6,8-hexahydro-3,7-di-tert-butylphenanthrene which was treated with NaNO2 in concentrated HCl-AcOH at 0° for 10 min and with aqueous Cu cyanide and NaHCO3 in C6H6 at room temperature for 5 h to give 26% 9,10-dicyano-1,2,4,5,6,8-hexahydro-3,7-di-tert-butylphenanthrene (III). Phthalocyanine dye IV prepared from III had λmax 744 nm (hexane) and hexane solubility ≥30 g/L.

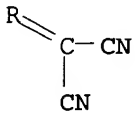
IT **94093-74-0P 124952-34-7P**
(preparation and reduction to aminocyanophenanthrene derivative)

RN 94093-74-0 HCAPLUS

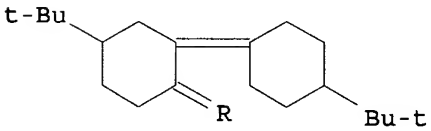
CN Propanedinitrile, (2-cyclohexylidenecyclohexylidene)- (9CI) (CA

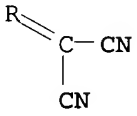
INDEX NAME)





RN 124952-34-7 HCAPLUS
CN Propanedinitrile, [4-(1,1-dimethylethyl)-2-[4-(1,1-dimethylethyl)cyclohexylidene]cyclohexylidene]- (9CI) (CA INDEX NAME)





IC ICM C07C121-56
ICS C07C121-64
CC 41-7 (Dyes, Organic Pigments, Fluorescent Brighteners, and **Photographic** Sensitizers)
IT **94093-74-0P 124952-34-7P**
(preparation and reduction to aminocyanophenanthrene derivative)

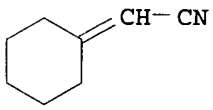
L49 ANSWER 16 OF 20 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1988:6109 HCAPLUS
DOCUMENT NUMBER: 108:6109
TITLE: Gas-liquid phase-transfer catalysis. Wittig-Horner reaction in heterogeneous conditions
AUTHOR(S): Angeletti, Enrico; Tundo, Pietro; Venturello, Paolo
CORPORATE SOURCE: Ist. Chim. Org., Univ. Torino, Turin, 10125, Italy
SOURCE: Journal of the Chemical Society, Perkin Transactions 1: Organic and Bio-Organic Chemistry (1972-1999) (1987), (4), 713-14
CODEN: JCPRB4; ISSN: 0300-922X
DOCUMENT TYPE: Journal
LANGUAGE: English
OTHER SOURCE(S): CASREACT 108:6109
AB The Wittig-Horner synthesis of alkenes has been carried out under

gas-liquid phase-transfer catalysis conditions. With this technique the carbonyl compound and the phosphonate flow under pressure through solid K2CO3 contained in a thermostatted column, where the conditions (temperature and pressure) are such as to ensure that the reactants are gaseous. The alkene so produced was cooled and collected at the column outlet. Reaction yields were higher when the solid K2CO3 was **coated** with poly(ethylene glycol)-Carbowax 6000. The function of the poly(ethylene glycol) is discussed. Aromatic aldehydes react successfully with (EtO)2P(O)CH2CO2Et and (EtO)2P(O)CH2CN; ketones react only with the latter. Reaction conversions (based on the purity of the recovered alkene) are always higher, while yields (measured on the basis of the actual amount of pure alkene recovered, with respect to the reacting carbonyl compound) are lower.

IT **4435-18-1P**
(preparation of, from Wittig-Horner reaction under heterogeneous conditions)

RN 4435-18-1 HCAPLUS

CN Acetonitrile, cyclohexylidene- (9CI) (CA INDEX NAME)



CC 29-7 (Organometallic and Organometalloidal Compounds)

IT 584-08-7, Potassium carbonate
(catalyst, **coated** with poly(ethylene glycol), for Wittig-Horner synthesis of alkenes under gas-liquid phase-transfer catalytic conditions)

IT 1885-38-7P 4192-77-2P **4435-18-1P** 14482-11-2P 14799-78-1P 14799-79-2P 24393-56-4P 24840-05-9P 39806-16-1P
(preparation of, from Wittig-Horner reaction under heterogeneous conditions)

L49 ANSWER 17 OF 20 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1985:168354 HCAPLUS

DOCUMENT NUMBER: 102:168354

TITLE: Hardening agents for lacquer binders

INVENTOR(S): Schipfer, Rudolf; Schmoelzer, Gerhard

PATENT ASSIGNEE(S): Vianova Kunstharz A.-G., Austria

SOURCE: Eur. Pat. Appl., 21 pp.
CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 131127	A1	19850116	EP 1984-106050	1984 0528
EP 131127	B1	19861105		
R: BE, DE, FR, GB, IT, SE				
AT 8302531	A	19850615	AT 1983-2531	

				1983 0711
AT 379602	B	19860210		
ZA 8404381	A	19850130	ZA 1984-4381	1984 0608
PL 143698	B1	19880331	PL 1984-248443	1984 0628
AU 8430077	A1	19850117	AU 1984-30077	1984 0702
AU 569531	B2	19880204		
US 4523007	A	19850611	US 1984-628844	1984 0709
ES 534135	A1	19850801	ES 1984-534135	1984 0709
BR 8403419	A	19850618	BR 1984-3419	1984 0710
CA 1224214	A1	19870714	CA 1984-458550	1984 0710
JP 60038413	A2	19850228	JP 1984-142491	1984 0711
JP 05030872	B4	19930511		
PRIORITY APPLN. INFO.:			AT 1983-2531 A	1983 0711

AB Curing agents for binders which can be crosslinked by transesterification, useful in cathodic electodip coating, are prepared by polymerizing Knoevenagel adducts of carbonyl compds. with malonate or acetoacetate ester derivs. to mol. weight 300-6000. Thus, adding 33 g 91% paraformaldehyde in portions to di-Et malonate 160, piperidine 0.85, and 85% HCO2H 0.54 g stirred at 70-90°, heating over 2 h to 140° with H2O distillation, adding benzine (b.p. 80-20°) and distilling H2O azeotropically, and stripping at 120° in vacuo gave a product (I) with mol. weight 500, ester group content 1.17/100 g, and Gardner-Holdt viscosity of 90% EtOCH2CH2OH solution M. A mixture of 123 parts 65g EtOCH2CH2OH solution of aminated epoxy resin [from bisphenol glycidyl ether 1425, diethanolamine 126, Et2N(CH2)3NH2 169, and glycidyl versatate 478 g] and 20 parts I was stable for >10 days at 40° before and after dilution to 12% solids with H2O, and the aqueous solution gave a cathodic electrodip coating (baked 30 min at 180°) with acetone resistance >200 S.

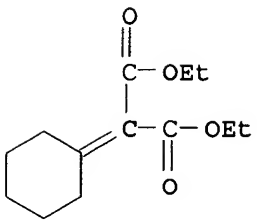
IT **96128-22-2**
(crosslinking agents, for epoxy resin electrophoretic coatings)

RN 96128-22-2 HCAPLUS

CN Propanedioic acid, cyclohexylidene-, diethyl ester, polymer with diethyl methylenepropanedioate (9CI) (CA INDEX NAME)

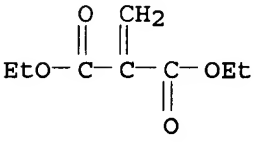
CM 1

CRN 41589-43-9
CMF C13 H20 O4



CM 2

CRN 3377-20-6
CMF C8 H12 O4



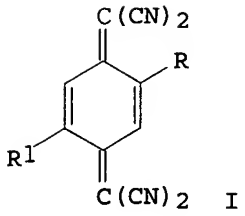
IC ICM C25D013-06
ICS C08G059-42; C08F022-14; C08F022-32
CC 42-3 (Coatings, Inks, and Related Products)
IT 25067-30-5 26618-82-6 26877-44-1 30329-60-3 95992-18-0
95992-20-4 95998-49-5 96128-21-1 **96128-22-2**
(crosslinking agents, for epoxy resin electrophoretic coatings)

L49 ANSWER 18 OF 20 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1985:87606 HCAPLUS
DOCUMENT NUMBER: 102:87606
TITLE: Electrophotographic photoreceptor
PATENT ASSIGNEE(S): Takasago Perfumery Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 59170845	A2	19840927	JP 1983-44816	19830317
JP 02033152	B4	19900725		

PRIORITY APPLN. INFO.: JP 1983-44816 19830317

GI



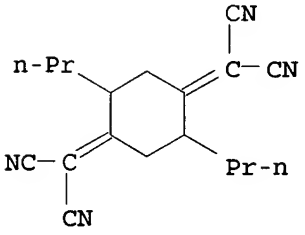
I

AB An electrophotog. photoreceptor contains, in the organic photoconductive material, an alkyl-substituted tetracyanoquinodimethane compound (I; R, R1 = (independently) H, C1-7 alkyl, cyclohexyl, cyclohexylmethyl; and R and R1 are not H simultaneously). These compds. have a high cosoly. with organic photoconductors and provides a very high sensitizing effect. Thus, 236 mg 2,5-diethyl-7,7,8,8-tetracyanoquinodimethane was dissolved in a 10% solution of poly(N-vinylcarbazole) (in PhCl) 19.3 g (10:1 molar ratio). The mixture was **coated** on an Al-laminated polyester film and dried. The photoreceptor when charged to -720 V had a sensitivity (lx-s for half decay of voltage) of 5, which was 4 times higher than a control containing an unsubstituted tetracyanoquinodimethane.

IT **94854-14-5P 94854-15-6P 94854-16-7P**
(formation and dehydrogenation of)

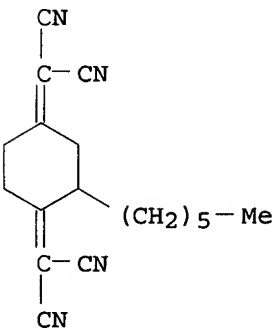
RN 94854-14-5 HCAPLUS

CN Propanedinitrile, 2,2'-(2,5-dipropyl-1,4-cyclohexanediylidene)bis- (9CI) (CA INDEX NAME)

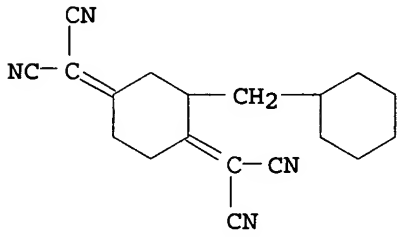


RN 94854-15-6 HCAPLUS

CN Propanedinitrile, 2,2'-(2-hexyl-1,4-cyclohexanediylidene)bis- (9CI) (CA INDEX NAME)

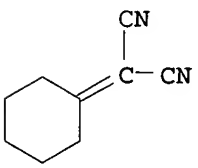


RN 94854-16-7 HCAPLUS
CN Propanedinitrile, 2,2'-[2-(cyclohexylmethyl)-1,4-cyclohexanediylidene]bis- (9CI) (CA INDEX NAME)



IC G03G005-09; G03G005-07
CC 74-3 (Radiation Chemistry, Photochemistry, and **Photographic** and Other Reprographic Processes)
IT **94854-14-5P 94854-15-6P 94854-16-7P**
(formation and dehydrogenation of)

L49 ANSWER 19 OF 20 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1983:557903 HCAPLUS
DOCUMENT NUMBER: 99:157903
TITLE: Potassium fluoride on alumina. An efficient solid base for elimination, addition, and condensation
AUTHOR(S): Yamawaki, Junko; Kawate, Takehiko; Ando, Takashi; Hanafusa, Terukiyo
CORPORATE SOURCE: Inst. Sci. Ind. Res., Osaka Univ., Ibaraki, 567, Japan
SOURCE: Bulletin of the Chemical Society of Japan (1983), 56(6), 1885-6
CODEN: BCSJA8; ISSN: 0009-2673
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Alumina **coated** with KF was a versatile solid base for olefin- and acetylene-forming elimination, the Michael addition, aldol condensation, and the Darzens condensation.
IT **4354-73-8P**
(preparation of, by condensation reaction, alumina supported potassium fluoride)
RN 4354-73-8 HCAPLUS
CN Propanedinitrile, cyclohexylidene- (9CI) (CA INDEX NAME)



CC 25-2 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds)
IT 2510-95-4P 2700-22-3P **4354-73-8P** 34350-73-7P
(preparation of, by condensation reaction, alumina supported potassium fluoride)

L49 ANSWER 20 OF 20 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1974:492218 HCAPLUS
DOCUMENT NUMBER: 81:92218
TITLE: Polyester
INVENTOR(S): Shima, Takeo; Urasaki, Takatoku; Oka, Isao
PATENT ASSIGNEE(S): Teijin Ltd.
SOURCE: Jpn. Tokkyo Koho, 4 pp.
CODEN: JAXXAD
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 48035950	B4	19731031	JP 1968-94732	1968 1223

PRIORITY APPLN. INFO.: JP 1968-94732 1968 1223

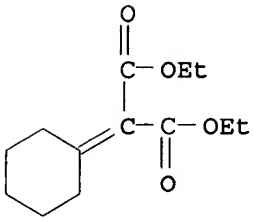
AB A polyester is prepared by reacting dimethyl terephthalate(I) with ethylene glycol(II) in the presence of n mole % (on the total acid component in the resulting polyester) unsatd. polyester (added during polymerization when the intrinsic viscosity [η] is >0.2) obtained from methylenemalonates and II, possibly containing adipates, where n = (0.1-1.0) [η]-1.3. Thus, a mixture of II 18.6, (AcO)2Mn 0.02, Sb2O3 0.09, and diethyl butylidenemalonate 21.4 parts was heated to give a transesterified product which was heated 150 min at 180-200.deg./0.2 mm to give an unsatd. polyester(III) with intrinsic viscosity 0.18 (o-ClC6H4OH, 35.deg.). A mixture of I 97, II 69, (AcO)2Ca.H2O 0.07, and Sb2O3 0.04 part was heated at 180-230.deg. under pressure to give a transesterified product, which was treated with 50% aqueous H3PO3 [equimolar amount on (AcO)2Ca]. The whole mixture was heated 70 min at 285.deg./0.25 mm to give poly(ethylene terephthalate) with intrinsic viscosity 0.70. The reaction mixture was treated with 0.92 part III at normal pressure under N, and heated 20 min at 285.deg./0.25 mm, giving a polymer [52234-47-6] with intrinsic viscosity 0.85 and CO2H end group content 7.1 equiv/106g, compared with 0.80 and 19 equiv/106g, resp., for the control obtained under the same conditions without adding III.

IT **52234-46-5**
(high-mol.-weight, moldable)

RN 52234-46-5 HCAPLUS
CN 1,4-Benzenedicarboxylic acid, dimethyl ester, polymer with diethyl cyclohexylidenepropanedioate and 1,2-ethanediol (9CI) (CA INDEX NAME)

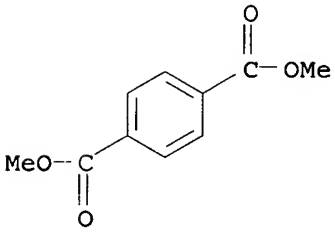
CM 1

CRN 41589-43-9
CMF C13 H20 O4



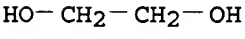
CM 2

CRN 120-61-6
CMF C10 H10 O4



CM 3

CRN 107-21-1
CMF C2 H6 O2



IC C08G; D01F
CC 35-3 (Synthetic High Polymers)
IT 52234-43-2 52234-44-3 52234-45-4 **52234-46-5**
52234-47-6
(high-mol.-weight, moldable)